
INPUT

*VENDOR ANALYSIS
PROGRAM*



Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

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CompuServe Incorporated

President & CEO: Robert J. Massey
5000 Arlington Centre Boulevard
P.O. Box 20212
Columbus, OH 43220
Phone: (614) 457-8600
Fax: (614) 457-0348
Internet:
[Http://www.compuserve.com](http://www.compuserve.com)

Status:	Wholly Owned Subsidiary
Parent:	H&R Block, Inc.
Employees:	3,500 (2/96)
Revenue, FYE 4/30/95:	\$582,793,000
Revenue, 9 mos. ending 1/31/96	\$578,000,000

Key Points

- CompuServe is a leading global provider of computer-based information and communications services to businesses and personal computer owners.
- In April 1996, H&R Block made an initial public offering of approximately 16 million shares (17.7%) of CompuServe's common stock.
- In June 1995, Robert J. Massey was named president and chief executive officer of CompuServe, succeeding Maurice Cox, who resigned to form a venture capital firm.
- The November 1994 acquisition of SPRY, Inc. expanded CompuServe's capabilities with Internet access applications for the office, home, and publishing markets.
- As of March 1996, CompuServe had more than four million members of its CompuServe Information Service, up from 1,200 users in 1979.
- Effective September 1995, CompuServe cut its CompuServe Information Services pricing to a monthly fee of \$9.95, which

includes five hours of free access to almost every area on the service, including CompuServe and Internet electronic mail, Internet access, and Forums.

Company Description

CompuServe, founded in 1969, provides remote computing, electronic mail, database access, internal communications, systems integration, value-added network services, and software products to more than 900 major U.S. corporations and government agencies. The company also provides on-line information and communications services to more than four million individual personal computer owners worldwide.

- The CompuServe Information ServiceSM (CIS), the company's flagship product, offers traditional on-line services and integrated Internet access for consumers.
- Through SPRYNETSM, CompuServe also provides a standalone Internet-access-only service.

CompuServe has operated as a wholly-owned subsidiary of H&R Block, Inc. since it was acquired in May 1980.

- In April 1996, H&R Block made an initial public offering of 16 million shares (17.7%) of CompuServe common stock. Upon completion of the offering, H&R Block will own at least 80% of CompuServe and will continue to have operating control of CompuServe.
- H&R Block, based in Kansas City (MO), is a diversified services company that primarily provides tax preparation and on-line information services.
- H&R Block reported total revenue of \$1.36 billion and net income of \$107.3 million for fiscal 1995.

On August 1, 1995, CompuServe announced a series of investment initiatives designed to enhance long-term competitiveness, take advantage of accelerating growth opportunities, and enhance market share for its on-line services.

- They include the launch of WOW!, a consumer on-line service targeted to the home market; a simplified and less expensive pricing structure; a new CIS interface; increased expenditures for marketing and infrastructure expansion; and the expansion of Internet access through CIS, WOW!, and SPRYNET.
- These initiatives are expected to reduce profitability during the next 12 to 24 months.

Organization and Structure

CompuServe operates primarily through two divisions:

- The Interactive Information Services Division provides worldwide on-line and Internet access services for consumers. CIS serves more than four million personal computer users and a host of financial and business products to companies.
- The Network Services Division provides local- and wide-area networking services, including frame relay, commercial Internet services, management and applications, remote LAN access and electronic mail to more than 900 major corporations and government agencies worldwide. The division provides the infrastructure that supports CIS and SPRYNET.

In addition to its world headquarters in Columbus (OH), CompuServe has offices in Bristol (England), Munich (Germany), and Paris (France). The company also has

network sales offices in 29 cities throughout the world.

CompuServe maintains three physically distinct and remote data centers in the Columbus (OH) vicinity.

Company Strategy

CompuServe's goal is to lead in the development and implementation of personal and commercial applications with computer-based interactive technology.

The company intends to aggressively grow its subscriber base for consumer on-line and Internet services, to expand its market position in the corporate networking sector, and continue to seek opportunities to increase the value of the new medium of computer-based interactive technology to individuals and corporations. Key components of this strategy include:

- Substantial investments in subscriber acquisition and retention, including marketing, distribution, customer support and services to attract and retain subscribers
- Targeted service offerings, including differentiated on-line and Internet services to appeal to subscribers' varied interests and comfort levels with computer technologies
- Accelerated international expansion, focusing efforts on Western Europe where it has a leading market position and existing infrastructure and where it believes the potential exists for the most significant international growth

- Increased value-added network services to differentiate itself from more commodity-oriented network providers

- Expansion and enhancement of network infrastructure, by expanding geographic coverage, increasing bandwidths and deploying native TCP/IP protocols

- Business synergies, leveraging its network and host server infrastructure across all of its businesses to reduce time to market and exploit cost advantage; and cross-selling by the sales force

The company has diversified its business with the acquisition of SPRY, investments in Network Publishing, Inc., a Provo (UT) provider of World Wide Web publishing services; and investments in Terisa Systems, a provider of encryption and other security solutions to facilitate safe commercial transactions on the Internet.

Financials

CompuServe's revenue for the nine months ending January 31, 1996 reached \$578 million, a 38% increase over \$418.7 million for the same period in 1995. Net income was \$50.2 million, down from \$67.2 million for the same period a year ago. A financial summary is shown on the following page.

- Fiscal 1995 revenue reached \$582.8 million, a 36% increase over fiscal 1994 revenue of \$429.9 million. Net income was \$8.8 million, down from \$62.1 million for fiscal 1994.
- Net income for fiscal 1995 was negatively impacted by a \$83.5 million charge for purchased research and development in conjunction with the acquisition of SPRY in April 1995.

**CompuServe Incorporated
Financial Summary**
(\$ Millions, except per share data)

Item	Nine Months Ending 1/31/96	Fiscal Year			
		4/95	4/94	4/93	4/92
Revenue	\$578.0	\$582.8	\$429.9	\$315.4	\$280.8
• Percent change from previous year	N/A	36%	36%	12%	12%
Income before taxes	\$84.3	\$68.3	\$104.7	\$75.4	\$54.6
• Percent change from previous year	N/A	(a) (35%)	39%	38%	14%
Net income	\$50.2	\$8.8	\$62.1	\$45.6	\$33.0
• Percent change from previous year	N/A	(86%)	36%	38%	12%

(a) Includes a \$83.5 million charge for purchased research and development associated with the acquisition of SPRY, Inc. in April 1995.

Revenue Analysis by Product/Service

A summary of CompuServe's business mix is shown on the following page.

- Interactive Information Services revenue is generated primarily from subscribers paying a monthly membership fee and charges based on usage, as well as from fees received from a licensee and distributors of CompuServe's on-line service technology.
- Network Services revenue is generated by providing value-added global network interconnectivity and access services to individuals and major corporate customers internationally. Pricing is based on terms negotiated as to price and duration.

Other revenue consists primarily of processing services provided to certain corporate customers and network services provided to H&R Block.

Results for the first nine months of fiscal 1996 were due to the following:

- Interactive Information Services revenue increased 45% over the same period a year ago, primarily the result of the increase in the subscriber base.
 - The number of CIS subscribers as of January 31, 1996, exclusive of NiftyServe subscribers, increased more than 66% over the same period a year ago.
- The average monthly CIS revenue per subscriber decreased to \$17.16 for the first nine months of 1996, from \$19.34 for the same period in the prior year. This was due to a price reduction implemented in February 1995 and the new pricing structure introduced in September 1995.
- Network Services revenue increased 34% and the number of customers increased nearly 33% to 928. Revenue increases

were due to the increased number of customers and higher usage by existing customers.

- Other revenue decreased 14% due to the absence of the gains reported in the prior period, including \$2.0 million from the

Collier-Jackson sale and \$1.1 million from H&R Block Tax Services for development of tax preparation software. These amounts were partially offset by a \$2.4 million gain on the sale of a minority-interest investment in 1996.

**CompuServe Incorporated
Source of Revenue Summary**
(**\$ Millions**)

Product/Service	Fiscal Year					
	Nine Months Ending 1/31/96		4/95		4/94	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Interactive Information Services	\$408.6	71%	\$395.9	68%	\$266.9	62%
Network Services	143.9	25%	147.7	25%	109.4	25%
Other (a)	25.5	4%	39.2	7%	53.6	13%
Total	\$578.0	100%	\$582.8	100%	\$429.9	100%

(a) Includes a \$2.7 million gain in fiscal 1995 from the sale of Collier-Jackson in June 1994.

CompuServe management attributes fiscal 1995 results to the following:

- Interactive Services revenue increased 48% due primarily to the increase in the number of subscribers. Revenue growth during fiscal 1995 and fiscal 1994 was due to the growth in Information and Network Services' revenues. The number of CIS subscribers, exclusive of NiftyServe, increased 59% to 2.2 million from 1.4 million in 1994. The average monthly revenue per subscriber in fiscal 1995 was \$19.17, compared to \$19.35 in fiscal 1994.
- The Information Services' worldwide customer base of the company and its affiliates grew to approximately 3.2 million as of April 1995, compared with 1.9 million as of April 1994 and 1.2 million as of April 1993.

- Network Services' revenue increased 35%. The number of customers increased nearly 27% to 743 as of April 1995, compared with 586 as of April 1994 and 484 as of April 1993.
- Other revenue decreased 27% primarily due to the sale of Collier-Jackson.
- Record earnings were primarily due to the continued strong performance of the Information and Network Services divisions.

CompuServe has begun a number of marketing and capital expenditure programs that will require substantial amounts of capital over the next few years. The company expects to spend approximately \$180 million in 1996 (up 400% over 1995) for subscriber acquisition and marketing; \$216 million in 1996 and \$186 million in 1997 for capital

expenditures; and \$200 million for full deployment of TCP/IP across its network over the three years beginning in 1997.

Market Financials

CompuServe's revenue is derived primarily from clients in the banking and finance, high technology, retail, information services, and manufacturing industries, as well as individual microcomputer users.

Geographic Markets

Approximately 78% of CompuServe's revenue for the nine months ending January 31, 1996 was derived from the U.S. and 22% from international sources.

A summary of geographic source of revenue follows:

**CompuServe Incorporated
Geographic Source of Revenue Summary
(\$ Millions)**

	Fiscal Year					
	Nine Months Ending 1/31/96		4/95		4/95	
Geographic Market	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
U.S.	\$453.3	78%	\$474.9	81%	\$364.4	85%
International	124.6	22%	107.9	19%	65.5	15%
Total	\$577.9	100%	\$582.8	100%	\$429.9	100%

Acquisitions

In April 1995, H&R Block acquired SPRY, Inc. of Seattle (WA) for \$101.6 million. The acquisition was accounted for as a purchase.

- SPRY provides SPRYNET, a full-featured, standalone Internet-access-only service, and Internet access tools.
- On January 30, 1996, H&R Block contributed its interest in SPRY to CompuServe.

Divestitures

In June 1994, H&R Block sold its Collier-Jackson, Inc. subsidiary for approximately \$5.2 million.

- Collier-Jackson, headquartered in Tampa (FL) with approximately 140 employees, provided the World Class Series™ of accounting, human resource management and newspaper management software products for UNIX-based product lines.
- The company recorded a gain on the sale of \$2.7 million (reported in *Other revenue*) for fiscal 1995.
- Prior to the divestiture, Collier-Jackson operated as a unit of CompuServe.

Employees

As of January 31, 1996, CompuServe had approximately 3,500 full-time employees.

Key Products and Services

Interactive Information Services

CIS is CompuServe's consumer on-line service. CIS targets the more experienced PC user in both the home and office, providing on-line access to a range of information and communications services.

- The service offers more than 2,000 content areas and databases in the following categories:
- *Communications*, including CompuServe MailSM, special interest Forum[®] areas, and CB Simulator[®]
- *News, Weather & Sports*, including The Executive News ServiceSM, Newspaper Archives, and weather maps
- *Travel*, including WORLDSPAN Travelshopper, Official Airline Guide Electronic Edition, easySABRE, United Connection, the ABC Worldwide Hotel Index, and Way to Go CompuServe
- *Electronic Shopping*, including The Electronic Mall[®], Shoppers Advantage, Consumer Reports, The Classified Ads
- *Finance*, including the Money Personal Finance Center, MONEY Daily, Global Report, current price quotes, on-line discount brokerage services
- *Entertainment & Games*, including Entertainment Drive, People Magazine, the ShowbizMedia Forum, the Music Hall, "You Guessed It!", interactive games, word games
- *Hobbies, Health & Family*, including diverse hobby Forums, PaperChase[®], Health Database Plus, journal abstracts

- *Research and Reference*, including IQuest bibliographic and full-test databases, Knowledge Index, Grolier's Academic American Encyclopedia, Peterson's College Database, The New Car Showroom, Computer Library, Magazine Database Plus, Business Database Plus, Phone*File

- *Internet Services*, including access to the World Wide Web, USENET Newsgroups, telnet access, and a FTP interface.

- The CompuServe Information Manager (CIM) is a communication software package providing an interactive graphical interface for OS/2, DOS, Windows and Macintosh environments. In April 1996, the company plans to introduce CIM 3.0 with an easier to use graphical user interface, integrated Internet access, and upgradable modules.
- CompuServe, its licensee (NiftyServe), and its distributors provide local access to CIS in approximately 75 cities outside the U.S. from offices in 17 countries. They offer multilingual interfaces, feature local content, and provide customer service.

- As of January 31, 1996, CIS had more than 4.6 million subscribers, compared to 3 million at the end of fiscal 1995.

WOW!, launched in March 1996, is a consumer on-line service targeted to the home market.

- WOW! complements the existing CIS service by targeting the less experienced computer user.
- Focusing on the family, WOW! accommodates up to six individual users per household providing different interfaces for children and adults.

- Functions available on the service include Chat, Reference, Messaging, News, Internet, and Shopping.

SPRynet provides Internet-access-only services to those more technically sophisticated users who choose to bypass CIS and access the Internet directly.

- As of January 31, 1996, SPRynet had approximately 100,000 subscribers.
- SPRynet has the geographic coverage to provide local access to the Internet to more than 92% of the U.S. population and to most major cities throughout the world.
- Internet products acquired with SPRY include Internet in A Box™, Internet In A Box for Kids™, Mosaic In A Box, NetLauncher™, and SafetyNET.
- In February 1996, CompuServe announced that SPRynet would begin offering subscribers a choice of unlimited access to the Internet for a competitive fixed monthly fee or a fixed amount of access for a monthly fee with a competitive hourly rate thereafter.

Network Services

CompuServe provides wide-area network connectivity, applications, and systems management to business clients needing to reach dispersed audiences around the world. CompuServe also provides Internet access and services to businesses.

- The network supports both proprietary protocols for secure transmissions and open protocols for Internet access.

- Value-added services enable customers to provide their employees with remote dial and private line access to central LAN or host servers.
- CompuServe has expertise in supporting groupware applications, such as Lotus Notes.

Examples of network services include:

- Supplying the point of sale network to Visa International for credit card authorizations. Other transaction processing customers include National Processing, Michigan National Bank, and Harris Bank.
- Transmitting credit data for TRW to approximately 200,000 corporate clients
- Providing package tracking information to customers of Federal Express
- Providing a crew scheduling service that allows pilots and flight attendants to access flight schedules from their home and PCs, and to request specific flights.
- Corporate customers such as Burger King and Charles Schwab use CompuServe's network to establish LAN-to-LAN connectivity and manage network equipment on the customer's premises.

Clients

The number of CompuServe subscribers/customers for its on-line and network services is summarized on the following page.

CompuServe Subscribers/Customers

Item	Fiscal Year				
	Nine Months Ending 1/31/96	4/95	4/94	4/93	4/92
On-line subscribers					
- North America	2,313	1,765	1,139	776	607
- International	833	456	239	145	114
Total USA hosted	3,146	2,221	1,378	921	721
- Licensee	1,472	809	640	480	350
Total on-line subscribers	4,618	3,030	2,018	1,401	1,071
Total on-line subscriber hours	80,562	50,326	27,271	14,123	8,646
Network Services customers	928	743	586	484	377
Total network customer hours	31,691	31,539	20,058	14,149	10,283

Marketing and Sales

CompuServe promotes its on-line products and services through various marketing efforts, including direct mail, publication inserts, national television advertising, and print advertisements in general business and specialty periodicals.

CompuServe also cross-sells its on-line service through its Network Services sales force to corporate network customers.

In addition to its independent marketing efforts, the company has comarketing agreements with most major personal computer hardware and peripheral device manufacturers (where CompuServe bundles its on-line access software with the hardware shipped by PC manufacturers).

CompuServe has recently begun a major new marketing and distribution effort to capitalize on the growing interest in on-line services and the Internet.

- The goal of the new programs is to increase market awareness of the CompuServe name, communicate targeted messages to different consumer audiences, and make it

easier for consumers to sample and subscribe to CompuServe's services.

- New programs include substantial increases in distribution of trial software disks through direct mail, publication inserts, and special event promotions, increased general consumer advertising on television and in periodicals for CIS and WOW!, and expanded international marketing efforts.

CompuServe is also pursuing cobranding opportunities with a number of airline and hotel affinity programs.

Network Services has 350 sales associates.

Alliances

CompuServe has licensed its core technology and network model relating to its on-line service to NiftyServe, a joint venture of Fujitsu and Niisho Iwai.

- NiftyServe is licensed to operate its own on-line service in Japan based on the CompuServe technology.
- In addition, NiftyServe has the exclusive right to distribute CIS in Japan.

- NiftyServe has been authorized by CompuServe to license a subdistributor in Taiwan and another in Korea to distribute CIS in those countries.

CompuServe also has arrangements with various distributors in Australia, New Zealand, Hong Kong, Mexico, Argentina, Chile, Venezuela, Israel, and South Africa, whose main function is to generate customers for CIS.

CompuServe currently has content agreements with more than 200 providers, including Time Warner.

CompuServe has an equity investment in Network Publishing, Inc., which provides electronic publishing services to organizations that want a presence on the World Wide Web.

Competition

CompuServe's major competitors by service area include the following:

- *Proprietary on-line services*—America Online and Prodigy Services Company
- *Internet-based on-line services*—Microsoft Network

- *Internet-access-only services*—NETCOM On-Line Communication Services, BBN Corporation, America Online (GNN service), PSINet, and UUNET Technologies
- *Network Services*—Local and international telecommunications companies and other data communications services, including AT&T (WorldNet), MCI, Sprint, Advantis, EDS, and British Telecom

INPUT Assessment

CompuServe's strengths include:

- Large, growing customer base
- International distribution channels
- Internet-access-only capabilities

Challenges include:

- Managing the company's rapid growth
- Competing with the growing base of Internet providers
- Preparing for the expected deployment of new on-line services, including new competition from telephone, software, and cable television companies

COMPUERVE INCORPORATED

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Columbus, OH 43220
Phone: (614) 457-8600
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President & CEO: Matrices A. Cox
Status: Wholly Owned Subsidiary
Parent: H&R Block, Inc.
Total Employees: 1,600
Total Revenue: \$315,399,000
Fiscal Year End: 4/30/93

Key Points

- CompuServe Incorporated, (CompuServe) provides remote computing, electronic mail, database access, internal communications, systems integration, value-added network services and application and systems software products.
- In January 1994, CompuServe announced it is cutting its hourly fees by 40%. CompuServe users will now be able to connect to hourly services (which include most forums) for \$4.80 per hour at 2400 baud. Users connecting at 9600 baud will now pay \$9.60 per hour. CompuServe attributes the price decrease to a less expensive hardware configuration that has led to reduced operational costs.
- In January 1994, CompuServe announced a CD ROM title that supplies multimedia extensions of the company's service on disc.
- In fiscal 1993, CompuServe experienced record earnings and revenue growth. Fiscal 1993 revenues were \$315 million up 12.3% from \$280 million the previous year.
- In February 1994, CompuServe announced an agreement with Lotus Development Corporation to allow 4.5 million users of cc:Mail quick access to other electronic mail users, worldwide, through the CompuServe Mail Hub.

Company Description

CompuServe, founded in 1969, provides remote computing, electronic mail, database access, internal communications, systems integration, value-added network services and application and systems software products to major U.S. corporations and government agencies.

CompuServe also provides communication and information processing services to owners of microcomputers. CompuServe has operated as a wholly-owned subsidiary of H&R Block since it was acquired in May 1980.

CompuServe's information service for individual personal computer owners currently has more than 1.3 million members worldwide, making it one of the largest on-line information services. CompuServe also provides electronic mail, software and value-added packet data network services to more than 2,000 major U.S. corporations and government agencies.

Financial

CompuServe's fiscal 1993 revenue reached \$315 million, a 12.3% increase over fiscal 1992 revenue. A five-year financial summary follows:

**COMPUSERVE INCORPORATED
FIVE-YEAR FINANCIAL SUMMARY
(\$ Millions)**

ITEM	FISCAL YEAR END				
	4/93	4/92	4/91	4/90	4/89
Revenue	\$315.4	280.8	\$251.6	\$206.7	\$173.1
Percent increase from previous year	12%	12%	22%	19%	16%
Income before taxes	\$74	\$55.3	\$48.6	\$40.3	\$30.6
Percent increase from previous year	34%	14%	21%	32%	21%

CompuServe's business mix as percent of revenue was as follows:

Consumer	56%
Network	27%
Commercial	6%
Software	6%
Other	5%
TOTAL:	100%

Industry Markets

CompuServe's fiscal 1993 revenue was derived primarily from clients in the banking and finance, high technology retail, information services, and manufacturing industries, as well as individual microcomputer users.

Geographic Markets

Approximately 54% of CompuServe's fiscal 1993 revenue was derived from the U.S. In the international arena, CompuServe doubled the number of CompuServe members in Europe during fiscal 1993. Affiliate agreements for marketing and customer support were established with companies in Israel and Hungary, with a new CompuServe office planned for Paris in early 1994.

Operations/ Structure

CompuServe's products and services are marketed to corporate customers and supported through the following U.S. branch offices: Santa Ana, Santa Clara, San Francisco, and Los Angeles (CA); Tucson (AZ); Miami (FL); Atlanta (GA); Louisville (KY); Dallas and Houston (TX); Cleveland, Columbus, and Toledo (OH); Westport (CT); Chicago (IL); Indianapolis (IN); Boston (MA); Detroit (MI); Minneapolis (MN); St. Louis (MO); Philadelphia and Pittsburgh (PA); Rochelle Park (NJ); New York (NY); and Washington, D.C.

CompuServe is organized into the following divisions:

- The Information Services Division, with 400 employees, provides microcomputer users access to a range of general information databases in the areas of business, research, demographics and news, as well as electronic mail, interactive conferencing, home shopping, financial transaction services and travel planning services.
- The Network Services Division, with 426 employees, provides local- and wide-area network services to commercial clients. Electronic mail, POS authorization, electronic data interchange, private videotex and packet data network services are also provided.

- The Systems Integration Group, was formed in September 1991 to sell and support LAN systems and provide WAN/LAN interconnections.
- The Support Services Division, provides systems engineering, product development, computer operations and associated support services to CompuServe's other units.

Employees

As of April 1993, CompuServe had approximately 1,600 employees.

Strategy

CompuServe is considered a "utility" on-line service, offering something for all personal computer owners. The strategic focus of the Information services division during fiscal 1993 was to strengthen CompuServe's position against new services that have added significant competition to the market, including America Online and the on-line service offered by Apple Computer called eWorld.

In order to support CompuServe's leadership position, the company continues to announce changes to its Standard Pricing Plan. In a January 1994 announcement, CompuServe effectively reduced hourly connect time charges by 40%.

In addition to changes in its pricing structure, CompuServe has introduced simplified access to its on-line service by introducing user interface software compatible with Microsoft's Windows operating system. A key element in membership growth is the CompuServe Information Manager (CIM) software included in most CompuServe membership kits. The software is bundled with selected brands of modems and installed on the hard disk drives of several major brands of personal computers. More than one-half million copies of CIM software had been distributed during fiscal 1993.

CompuServe also continue to expand access for electronic mail users. In February 1994, CompuServe announced an agreement with Lotus Development Corporation to allow the 4.5 million users of cc:Mail quick access to other electronic mail users worldwide, through the CompuServe Mail Hub. In addition to CompuServe's 1.3 million users, the hub also serves other CompuServe-linked systems, including the Internet, Novell NetWareMHS, Lotus Notes, MCIMail, SprintMail, AT&T Mail, AT&T EasyLink, Infonet, Deutsche Bundespost and the NIFTY-Serve service.

Acquisitions

Acquisitions made by CompuServe include the following:

- In May 1991, CompuServe acquired SEARA Information Strategy Corporation of McLean (VA). SEARA, with approximately 20 employees at the time of the acquisition and annual revenue of \$3 million, provided local-area network (LAN) systems integration services to legal firms, large corporations, real estate firms, international organizations and financial institutions. The operations of SEARA have been merged into CompuServe's Systems Integration Group.
- In August 1990, CompuServe acquired Dallas-based MicroSolutions, Inc., a reseller of local-area network (LAN) and connectivity products. The operations of MicroSolutions have been merged into CompuServe's Systems Integration Group.
- In 1989, CompuServe bought a long-time rival, The Source. The Source was incorporated into CompuServe in August 1989.

Divestitures

On November 7, 1991, CompuServe sold substantially all the assets of its wholly-owned subsidiary, Access Technology, Inc., the largest component of the CompuServe Software Products Division, headquartered in Natick (MA). Access Technology, with over 280 employees, provided integrated spreadsheet modeling software for multiuser computers.

On April 17, 1992, CompuServe sold substantially all operating assets of MicroSolutions, Inc. MicroSolutions was an operating division of CompuServe and the largest component of its System Integration Group.

Alliances**Metatec Corporation**

In alliance with Metatec Corporation, a manufacturer and publisher of CD ROM titles, CompuServe is publishing a CD ROM title that supplies multimedia extensions of the company's service on disc. Each disc will feature complements to CompuServe's various services, including audio and video the company cannot provide on-line.

NIFTY Corporation

CompuServe first entered the international arena in 1986 when it established a joint marketing agreement with NIFTY Corporation, a joint venture of Nissho Iwai and Fujitsu Ltd.

- The agreement resulted in the creation of NIFTY-Serve, a Japanese language version of the CompuServe Information Service that now has nearly 280,000 members. NIFTY, CompuServe's sole licensing agent in Asia, also provides local marketing and customer support to more than 70,000 Japanese members of the CompuServe Information Services.

CompuServe has since launched similar license and distributorship agreements in Taiwan (with NIFTY granting the sublicense to Taiwan Telecommunications Network Services Company), South Korea (with NIFTY granting the sublicense to POSDATA), Australia and New Zealand (licensed to Fujitsu Australia) and France (available to members of Minitel, the French videotex network).

Key Products and Services

Approximately 66% of CompuServe's fiscal 1993 revenue was derived from network/electronic information services (39% from consumer electronic information services and 27% from network applications), 20% from its various systems and application software products, 10% from commercial host-based (processing) services and 4% from support provided to H & R Block's Rapid Refund program.

Information Services Division

Through CompuServe Information Service, the company provides members who own a microcomputer and modem with on-line access, to a range of information and communications services.

- CompuServe Information Service currently has more than 1.3 million subscribers, compared to 740,000 at the end of calendar 1990.
- The service offers a selection of more than 1,500 subject areas in the following categories:
 - Communications & Bulletin Boards
 - News, Weather & Sports
 - Travel
 - The Electronic Mall/Shopping
 - Money Matters & Markets
 - Entertainment and Games
 - Hobbies, Health & Family
 - Research and Reference
 - Personal Computing Services

- In addition to its basic service, CompuServe also offers an Executive Service Option that provides access to financial data bases, news clipping services, and other amenities.

The Information Services Division also offers a number of private applications to corporate markets. The first, called The CompuServe Mail Hub, enables users of certain LAN-based E-mail systems, to communicate with each other. CompuServe also continues to provide PC-based scheduling services for airline pilots and flight attendants and played a major role in automating a patient eligibility system for a HMO.

CompuServe's Financial Systems Group, that serves Wall Street institutional investment firms, has developed two new products to help money managers effectively use data for decision making--the CompuServe Research Manager and the CompuServe Data Engine for Microsoft Excel. These two products are marketed as value-added software products for use in conjunction with databases provided by the group.

Network Services Division

CompuServe's Network Services Division provides corporate and business clients access to value-added asynchronous, SDLC, X.25, and frame relay packet-switched network services and LAN systems integration services.

- The Business Services Group includes the following:
 - CompuServe Mail-electronic mail communication system
 - DISPLAY-electronic publishing system
 - FORUM-electronic conferencing system
 - Professional Connection PlusSM is communications software for IBM and compatible microcomputers.
 - Financial databases, available through CompuServe Information Service, are also available through the Business Services Division.
 - Value-added network services support clients in various business information, communications exchange and transaction management environments.
 - CompuServe is the primary service provider for VISA USA's nationwide point-of-sale credit card authorizations. In 1993,

VISA signed a new, five-year \$70 million agreement for dial-up POS authorization and settlement services.

- FRAME-NetSM, a nationwide public frame relay service, allows high-speed, bandwidth-on-demand connectivity for frame relay-supportive devices. In 1993, two leading router companies, Cisco Systems and Wellfleet Communications agreed to bundle their products with FRAME-Net.
- IBM Enhanced Services, includes a range of SNA/SDLC protocol conversion services
- International Services, enables connections from around 90 countries worldwide
- Dedicated Access Services, provides fixed-price X.25 dedicated connectivity
- End User Billing Services, where CompuServe directly bills users for access to customer host applications

CompuServe Systems Integration Group

- The Systems Integration Group provides vendor-independent LAN system consulting, design, installation and support for networking systems from such manufacturers as Novell, Microsoft, Banyan, IBM, Compaq, NetFRAME and Apple.
- The group also offers vendor-certified network and applications training courses taught at the customer's location or at regional training sites throughout the country.
- Sales and support offices are located in Dallas, Washington, D.C., New York, Chicago, Houston and Columbus.

CompuServe Data Technologies

- CompuServe Data Technologies, headquartered in Cambridge (MA), provides two systems software products for DEC computers.
- System 1032^R is a fourth-generation language and database management system for the VAX environment.
- System 1022^R is a database management system for DECsysten computers.

CompuServe Collier-Jackson

- Collier-Jackson, headquartered in Tampa (FL) with 143 employees, develops, markets and supports the World Class Series™ of accounting, human resource management and newspaper management software products for UNIX-based product lines.
- Collier-Jackson has approximately 5,000 products installed in the U.S. and Canada.

CompuServe continues to provide computer and network resources in support of H & R Block's Rapid Refund electronic filing program.

Clients CompuServe serves clients across all industries. In fiscal 1993, 56% of total revenue was from the consumer market.

Competition Competitors to CompuServe includes, Prodigy, America Online and eWorld.

INPUT Assessment In March 1992, CompuServe joined the ranks of consumer on-line services moving to flat-rate pricing. The flat-rate pricing strategy should be an important revenue generator for CompuServe because it puts the entire membership on monthly flat-rate pricing, generating revenue of more than \$6 million per month.

- CompuServe has also added new services to entice the consumer user and added new business services to expand its offering for enterprises.

CompuServe's challenge will be to continue to develop its Windows-based software to meet the challenge of the new GUI interface offered by competitors like America Online.

CompuServe has also stepped into the Lotus Notes accessibility issues early, working with WALNUT, the worldwide Note User group to offer Notes implementations on-line.

Finally, CompuServe continues to rethink the expansion of its products offerings. To support the use of personal computing devices, CompuServe is considering offering archival data storage on its public network. AT&T has been the first to announce AT&T PersonalLink Services will provide subscribers with storage capabilities and CompuServe is looking at a similar plan.

This will be an important consideration for CompuServe's user population in the future, as business professionals seek mobile computing support.

COMPANY PROFILE

COMPUSERVE INCORPORATED

5000 Arlington Centre Boulevard
Columbus, OH 43220
(614) 457-8600

Maurice A. Cox, President and CEO
Wholly Owned Subsidiary of H&R Block, Inc.
Total Employees: 1,600 (4/91)
Total Revenue, Fiscal Year End
4/30/91: \$251,566,000

The Company

CompuServe Incorporated, founded in 1969, provides remote computing, electronic mail, data base access, internal communications, systems integration, value-added network services, and application and systems software products to major U.S. corporations and government agencies. CompuServe also provides communication and information processing services to owners of microcomputers. CompuServe has operated as a wholly owned subsidiary of H&R Block since it was acquired in May 1980.

CompuServe's information service for individual personal computer owners currently has more than 870,000 members around the world, making it the largest on-line information service for microcomputer users. CompuServe also provides electronic mail, software, and value-added packet data network services to more than 2,000 major U.S. corporations and government agencies.

CompuServe's fiscal 1991 revenue reached \$251.6 million, a 22% increase over fiscal 1990 revenue of \$206.7 million. Pretax earnings rose 21%, from \$40.3 million in fiscal 1990 to \$48.6 million in fiscal 1991. A five-year financial summary follows:

COMPUSERVE INCORPORATED FIVE-YEAR FINANCIAL SUMMARY (\$ millions)

ITEM	FISCAL YEAR				
	4/91	4/90	4/89	4/88	4/87
Revenue	\$251.6	\$206.7	\$173.1	\$149.2	\$114.7
Percent increase from previous year	22%	19%	16%	30%	N/A
Income before taxes	\$48.6	\$40.3	\$30.6	\$25.2	\$18.4
Percent increase from previous year	21%	32%	21%	37%	N/A

Continued revenue growth is attributed to the CompuServe Information Services and Network Services operations. For fiscal 1991, revenues increased from all sources except Commercial Services (data base access and timesharing), which reported a 10% decrease.

- Lower margins in fiscal 1991 (19.3%) as compared to fiscal 1990 (19.5%) resulted primarily from lower earnings from the Software Products Division, which were affected by a sluggish economy.

Revenue for the three months ending July 31, 1991 reached \$65.8 million, a 19% increase over \$55.2 million for the same period in 1990. Pretax earnings for the quarter rose nearly 6%, from \$11.5 million to \$12.1 million.

Recent acquisitions made by CompuServe include the following:

- In May 1991, CompuServe acquired SEARA Information Strategy Corporation of McLean (VA).
 - SEARA, with approximately 20 employees at the time of the acquisition and annual revenue of \$3 million, provided local-area network (LAN) systems integration services to legal firms, large corporations, real estate firms, international organizations, and financial institutions.
- The operations of SEARA have been merged into CompuServe's Systems Integration Group.
- In August 1990, CompuServe acquired Dallas-based MicroSolutions, Inc., a reseller of local-area network (LAN) and connectivity products.
 - MicroSolutions' operations contributed \$18.2 million to CompuServe's fiscal 1991 revenue.
- The operations of MicroSolutions have been merged into CompuServe's Systems Integration Group.

CompuServe currently is organized into the following divisions:

- The Information Services Division, with 400 employees, provides microcomputer users access to a range of general information data bases in the areas of business, research, demographics, and news, as well as electronic mail, interactive conferencing, home shopping, financial transaction services, and travel planning services.

- The Network Services Division, with 426 employees, provides local- and wide-area network services to commercial clients. Electronic mail, POS authorization, electronic data interchange, private videotex, and packet data network services are also provided.
- The Systems Integration Group, with 129 employees, was formed in September 1991 to sell and support LAN systems and provide WAN/LAN interconnections. This unit includes the former operations of MicroSolutions and SEARA Information Strategy Corporation.
- The Software Products Division, with 462 employees, provides data base management, spreadsheet modeling, and financial, human resources, and newspaper management software products through several wholly owned subsidiaries.
- The Support Services Division, with 268 employees, provides systems engineering, product development, computer operations, and associated support services to CompuServe's other units.

As of April 1991, CompuServe had approximately 1,600 employees. The company currently has 1,632 employees.

Key Products and Services

Approximately 66% of CompuServe's fiscal 1991 revenue was derived from network/electronic information services (39% from consumer electronic information services and 27% from network applications), 20% from its various systems and application software products, 10% from commercial host-based (processing) services, and 4% from support provided to H & R Block's Rapid Refund program.

Through the CompuServe Information Service, the company provides members who own a microcomputer and a modem with on-line access to a range of information and communications services.

- The CompuServe Information Service currently has more than 870,000 subscribers, compared to 740,000 at the end of calendar 1990.
- The service offers a selection of more than 1,500 subject areas in the following categories:
 - Communications & Bulletin Boards
 - News, Weather & Sports
 - Travel

- The Electronic Mall/Shopping
- Money Matters & Markets
- Entertainment and Games
- Hobbies, Health & Family
- Research and Reference
- Personal Computing Services

· Data bases available through the service include the following:

- Financial Analysis Data Bases:
 - CompuServe offers a wide variety of fundamental and technical data bases which include: Disclosure II, Value Line Data Base II, Institutional Brokers' Estimate System (I/B/E/S), Standard & Poor's Online, and FundWatch Online by *Money* magazine (mutual fund screening and reporting service).
 - Two discount brokerage firms are also on-line to the service.
- Demographic Services Data Bases:
 - SUPERSITE demographic data base
 - CENDATA data base
 - Business Statistics
 - CITIBASE time-series economic data base
 - Neighborhood Reports
 - U.S.-State-County Reports .
- News Retrieval Services:
 - Executive News Service SM, developed by CompuServe, monitors and scans the AP and UPI news wires, Reuters Reports, OTC NewsAlert, and the Washington Post for topic areas based on user criteria.
 - IQuestSM provides access to reference resources stored in over 900 keyword searchable data bases, including newspapers, newsletters, news magazines, and industry and trade journals.

- As an enhancement to its basic service, CompuServe also offers an Executive Service Option that provides access to financial data bases, news clipping services, and other amenities.
- The CompuServe Information Manager (CIM), introduced in 1990, is a software product for DOS and Macintosh computers that incorporates a graphic, windows-like interface to assist users in accessing information on CompuServe. CIM also performs a number of tasks off-line, saving on-line connect charges for members.

CompuServe's Network Services Division provides corporate and business clients access to value-added asynchronous, SDLC, X.25, and frame relay packet switched network services and LAN systems integration services.

- The Business Services Group includes the following:
 - CompuServe Mail electronic mail communication system
 - DISPLAY electronic publishing system
 - FORUM electronic conferencing system
 - ACCESS data library
 - Professional Connection PlusSM is communications software for IBM and compatible microcomputers.
 - Financial data bases available through the CompuServe Information Service are also available through the Business Services Division.
- Value-added network services support clients in various business information, communications exchange, and transaction management environments.
 - CompuServe is the primary service provider for VISA USA's nationwide point-of-sale credit card authorizations.
 - Crew scheduling services are also provided to the airline industry.
- Other services provided by the division include:
 - FRAME-NetSM, a nationwide public frame relay service, allowing high-speed, bandwidth-on-demand connectivity for frame relay-supportive devices

- IBM Enhanced Services, including a range of SNA/SDLC protocol conversion services
- International Services, enabling connections from around 90 countries worldwide
- Dedicated Access Services, providing fixed-price X.25 dedicated connectivity
- End User Billing Services, where CompuServe directly bills end users for access to customer host applications
- . The Systems Integration Group provides vendor-independent LAN system consulting, design, installation, and support for networking systems from such manufacturers as Novell, Microsoft, Banyan, IBM, Compaq, NetFRAME, and Apple.
 - The group also offers vendor-certified network and applications training courses taught at the customer's location or at regional training sites throughout the country.
 - Sales and support offices are located in Dallas, Washington, D.C., New York, Chicago, Houston, and Columbus.

CompuServe's Software Products Division develops, markets, and supports software products through the following units:

- . Access Technology, Inc., the largest component of the Software Products Division, is headquartered in Natick (MA). Access Technology, with over 280 employees, provides integrated spreadsheet modeling software for multiuser computers.
- 20/20TM is an integrated spreadsheet available for minicomputers, mainframes, micro workstations, and personal computers from various manufacturers, including DEC IBM, Wang, Data General, Prime, Hewlett-Packard, AT&T, Sun, Apollo, and other UNIX-based machines and PC compatibles. There are currently over 50,000 multiuser site licenses.
- 20/20 Database Connection, the 20/20 Word Processing Connection, and optional interfaces to DEC ALL-IN-1 and Data General's CEO are also available.
- . CompuServe Data Technologies, headquartered in Cambridge (MA), provides two systems software products for DEC computers.

- System 1032^R is a fourth-generation language and data base management system for the VAX environment.
- System 1022^R is a data base management system for DECsystem computers.
- Collier-Jackson, headquartered in Tampa (FL) with 143 employees, develops, markets, and supports the World Class SeriesTM of accounting, human resource management, and newspaper management software products for DEC VAX and HP 3000 systems.
- Collier-Jackson currently has approximately 5,000 products installed in the U.S. and Canada.

CompuServe continues to provide computer and network resources in support of H & R Block's Rapid Refund electronic filing program. These services contributed revenue of \$11.7 million in fiscal 1991, \$7.1 million in fiscal 1990, and \$4.8 million in fiscal 1989.

Industry Markets

CompuServe's fiscal 1991 revenue was derived primarily from clients in the banking and finance, high technology retail, information services, and manufacturing industries, as well as individual microcomputer users.

Geographic Markets

The majority of CompuServe's fiscal 1991 revenue was derived from the U.S. International revenue is increasing.

CompuServe's products and services are marketed to corporate customers and supported through the following U.S. branch offices: Santa Ana, Santa Clara, San Francisco, and Los Angeles (CA); Tucson (AZ); Miami (FL); Atlanta (GA); Louisville (KY); Dallas and Houston (TX); Cleveland, Columbus, and Toledo (OH); Westport (CT); Chicago (IL); Indianapolis (IN); Boston (MA); Detroit (MI); Minneapolis (MN); St. Louis (MO); Philadelphia and Pittsburgh (PA); Rochelle Park (NJ); New York (NY); and Washington, D.C.

CompuServe first entered the international arena in 1986 when it established a joint marketing agreement with NIFTY Corporation, a joint venture of Nissho Iwai and Fujitsu Ltd.

- That agreement resulted in the creation of NIFTY-Serve, a Japanese language version of the CompuServe Information Service that now has nearly 280,000 members. NIFTY,

CompuServe's sole licensing agent in Asia, also provides local marketing and customer support to more than 70,000 Japanese members of the CompuServe Information Services.

- CompuServe has since launched similar license and distributorship agreements in Taiwan (with NIFTY granting the sublicense to Taiwan Telecommunications Network Services Company), South Korea (with NIFTY granting the sublicense to POSDATA), Australia and New Zealand (licensed to Fujitsu Australia), and France (available to members of Minitel, the French videotex network). Customer support offices and local dial access also are available in London, Frankfurt, and Munich.

Computer Hardware and Software

CompuServe has data centers in Columbus and Dublin (OH). Equipment available at the centers includes:

- 25 DEC KL processors running under CompuServe's proprietary operating system
- 12 SC-30 processors running under CompuServe's proprietary operating system
- 7 DEC VAXs

Access to the CompuServe network is provided locally in over 400 major U.S. metropolitan areas via leased lines. With WATS lines and TYMNET and Sprintnet supplemental networks, CompuServe can be accessed from virtually any domestic exchange. Via satellite link, CompuServe can be accessed from more than 100 countries.

COMPANY PROFILE

COMPUSERVE INCORPORATED
5000 Arlington Centre Boulevard
Columbus, OH 43220
(614) 457-8600

Charles W. McCall, President and CEO
Wholly Owned Subsidiary of H&R Block,
Inc.
Total Employees: 925 (4/87)
Total Revenue, Fiscal Year End
4/30/87: \$102,855,000

THE COMPANY

- CompuServe Incorporated, founded in 1969, provides remote computing, electronic mail, data base access, internal communications, and value-added network services to major U.S. corporations and government agencies. CompuServe is also the largest provider of communication and information processing services to owners of microcomputers. During 1987 the company, through an acquisition, also began offering data base management systems software products. CompuServe has operated as a wholly owned subsidiary of H&R Block since it was acquired in May 1980.
- Revenue for fiscal 1987 reached \$102.9 million, a 21% increase over fiscal 1986 revenue of nearly \$85 million. Net income rose 55%, from \$10 million in fiscal 1986 to \$15.5 million in fiscal 1987. A five-year financial summary follows:

COMPUSERVE INCORPORATED

COMPUSERVE INCORPORATED
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands)

Item	Fiscal Year	4/87	4/86	4/85	4/84	4/83
Revenue		\$ 102,855	\$ 84,986	\$ 68,862	\$ 51,800	\$ 39,449
• Percent increase from previous year		21%	23%	33%	31%	19%
Income before taxes		\$ 15,494	\$ 10,000	\$ 7,153	\$ 4,736	\$ 1,763
• Percent increase (decrease) from previous year		55%	40%	51%	169%	(25%)

- The increase in pretax margins (15% in fiscal 1987, compared to 12% in fiscal 1986, and 10% in fiscal 1985) resulted from exceptional growth in revenues in the individual consumer market which typically uses computer resources during off-peak times at relatively low incremental cost. Fiscal 1987 pretax earnings include a \$1 million fee resulting from an exclusive licensing agreement with Nissho Iwai and Fujitsu to market the CompuServe Information Service in Japan.
- Revenue for the three months ending July 31, 1987 reached \$30 million, a 25% increase over \$24 million for the same period in 1986. Income before taxes was \$5.7 million, compared to \$3.7 million for the same period a year ago.
 - Revenue for the first quarter of fiscal 1988 includes \$1.3 million in data base management system software sales to multiuser sites.
- CompuServe currently has four operating divisions as follows:
 - CompuServe Information Services provides microcomputer users access to a range of general information data bases, plus home shopping, banking and airline reservation services, electronic messaging, and home entertainment.
 - CompuServe Network Services provides value-added network telecommunication services to over 200 clients in the retail, banking and finance, and other industries.
 - CompuServe Business Services offers access to application programs, data bases, and communications services to a wide range of businesses. Electronic mail and private videotex services are also provided.

COMPUSERVE INCORPORATED

- CompuServe Data Technologies develops, markets, and supports data base management systems software products for DEC System-10, System-20, and VAX computers. This unit was formed following the acquisition of the data base management software business of Software House (Cambridge, MA) in December 1986. The acquisition included over 100 Software House employees.
- As of April 1987 CompuServe had 925 employees. The company currently has approximately 1,100 employees, segmented as follows:

Marketing/sales	250
Customer support/software services	465
Research and development	200
Computer operations	60
General and administrative	<u>125</u>
	1,100

KEY PRODUCTS AND SERVICES

- The majority of CompuServe's fiscal 1987 revenue was derived from its various on-line processing/network services. A small percentage was derived from data base management software (acquired in December 1986).
- Through CompuServe Information Services, the company provides subscribers who own a microcomputer and a modem on-line access to a range of information and communications services.
 - During fiscal 1987 the company had over 325,000 subscribers, compared to 275,000 in fiscal 1986, and 200,000 in fiscal 1985. Between 5,000 and 10,000 new subscribers are added each month.
 - The service offers more than 400 products covering thousands of subject areas. Products are offered in the following topic/application areas:
 - Communications/Bulletin Boards.
 - News/Weather/Sports.
 - Travel.
 - The Electronic Mall/Shopping.
 - Money Matters/Markets.
 - Entertainment/Games.
 - Home/Health/Family.
 - Reference/Education.
 - Computers/Technology.
 - Business/Other Interests.
 - During fiscal 1987 CompuServe concluded agreements with several companies, including major manufacturers of computer modems, to bundle CompuServe subscriptions with their microcomputer products.

COMPUSERVE INCORPORATED

Subscription kit sales are also available through retail outlets such as Sears Business Centers and Waldenbooks.

- During fiscal 1987 CompuServe reduced its rate for 2400-baud access, making it the same as the 1200-baud rate. The 2400-baud access is now available in about 120 metropolitan areas.
- Effective June 1, 1987, daytime access charges were reduced to correspond to the evening and weekend rates.
- In February 1986 CompuServe signed an exclusive agreement with two major Japanese firms, Fujitsu and Nissho Iwai, to offer the CompuServe Information Service in Japan. Both firms were granted a license to market and support the service in Japan through a third company, Network Information Forum, and to develop their own service in subsequent years.
- Through CompuServe Business Services the company provides corporate and business clients access to both application programs and data bases. Customized programs are also available.
 - Services are provided to a wide range of clients, including investment and commercial banking institutions, insurance companies, pharmaceutical companies, publishers, retail marketers, lodging industry members, major airlines, automotive industry members, credit card companies, and government agencies.
 - Business Service offerings include the following:
 - Computer Communications Services.
 - Interchange™ integrates the following electronic communication and information delivery products into a single compatible environment.
 - InfoPlex® electronic mail communication system.
 - DISPLAY electronic publishing system.
 - FORUM™ electronic conferencing system.
 - CompuServe Network Services provide value-added network services.
 - CHECKFREE™ is an electronic payment system that permits direct collection from specified customer accounts.
 - Financial Analysis Data Bases.
 - 10K PLUS™ integrates screening, sorting, and ad hoc reporting of fundamental financial data bases for access

COMPUSERVE INCORPORATED

and analysis of historical and current financial data. Data bases currently available as part of the system include COMPUTSTAT II®, Disclosure II, New Issues of Corporate Securities, Banking Data Service (BDS), Value Line Data Base II, Institutional Broker's Estimate System (I/B/E/S), and Standard & Poor's Register Online.

- Micro 10K PLUS™ provides microcomputer access to 10K PLUS.
- Securities Market Data is an interactive securities system of pricing data bases and software for data retrieval and analysis. Data bases include North American Securities (VALUETM), International Securities, Quick Quote™, and Commodities Database.
- Decision Support and Data Base Management Systems.
 - SUPERSITE™-demographic data base.
 - DORISTM(Demographic Online Retrieval Information System).
 - CITIBASE™-time-series economic data base.
 - Computer Optimized Experimental Design (COED™).
 - Response Surface Methodology (RSM), an experimental design and data analysis research and development tool.
 - System 1022TM, for data base management.
 - ECL/80TMextends the report generation capabilities of System 1022.
- News Retrieval Services.
 - Executive News Service, developed by CompuServe, monitors and scans the Associated Press news wire, Reuters Financial Report, OTC NewsAlert, McGraw-Hill Business Report, and the Washington Post for topic areas based on user criteria.
 - I QuestTMprovides access to reference resources stored in over 800 keyword searchable data bases, including newspapers, newsletters, news magazines, and industry and trade journals.
- The company expanded its position in the international market during fiscal 1987 through a five-year agreement with Computer Sciences

COMPUSERVE INCORPORATED

Corporation to market electronic communications and business-related processing services to companies in Europe and parts of the Far East.

- In February 1986 CompuServe announced an agreement with MCI Communications Corporation to interconnect the electronic mail systems of MCI and CompuServe, permitting the more than 500,000 users of the two companies' systems to communicate with each other.
- Through CompuServe Network Services the company provides value-added network services to over 200 clients, up from 30 three years ago.
 - Clients can access the network with a local phone call from approximately 300 major U.S. cities, and, via satellite link, from 79 foreign countries.
 - The network is used for a range of applications, including point-of-sale (POS) credit card authorization services.
 - During fiscal 1987 CompuServe entered into an agreement to provide telecommunications services to the Online Computer Library Center.
- Through CompuServe Data Technologies the company provides data base management software for DEC computers.
 - Products include System 1022 for DEC System-10 and System-20 computers, and System 1032 for DEC VAX computers.
 - There are currently over 400 product sites.

INDUSTRY MARKETS

- CompuServe's fiscal 1987 revenue was primarily derived from clients in the banking and finance, retail, information services, and manufacturing industries, as well as individual microcomputer users.
 - Commercial customers account for more than one-half of revenue and include 1,300 corporations.

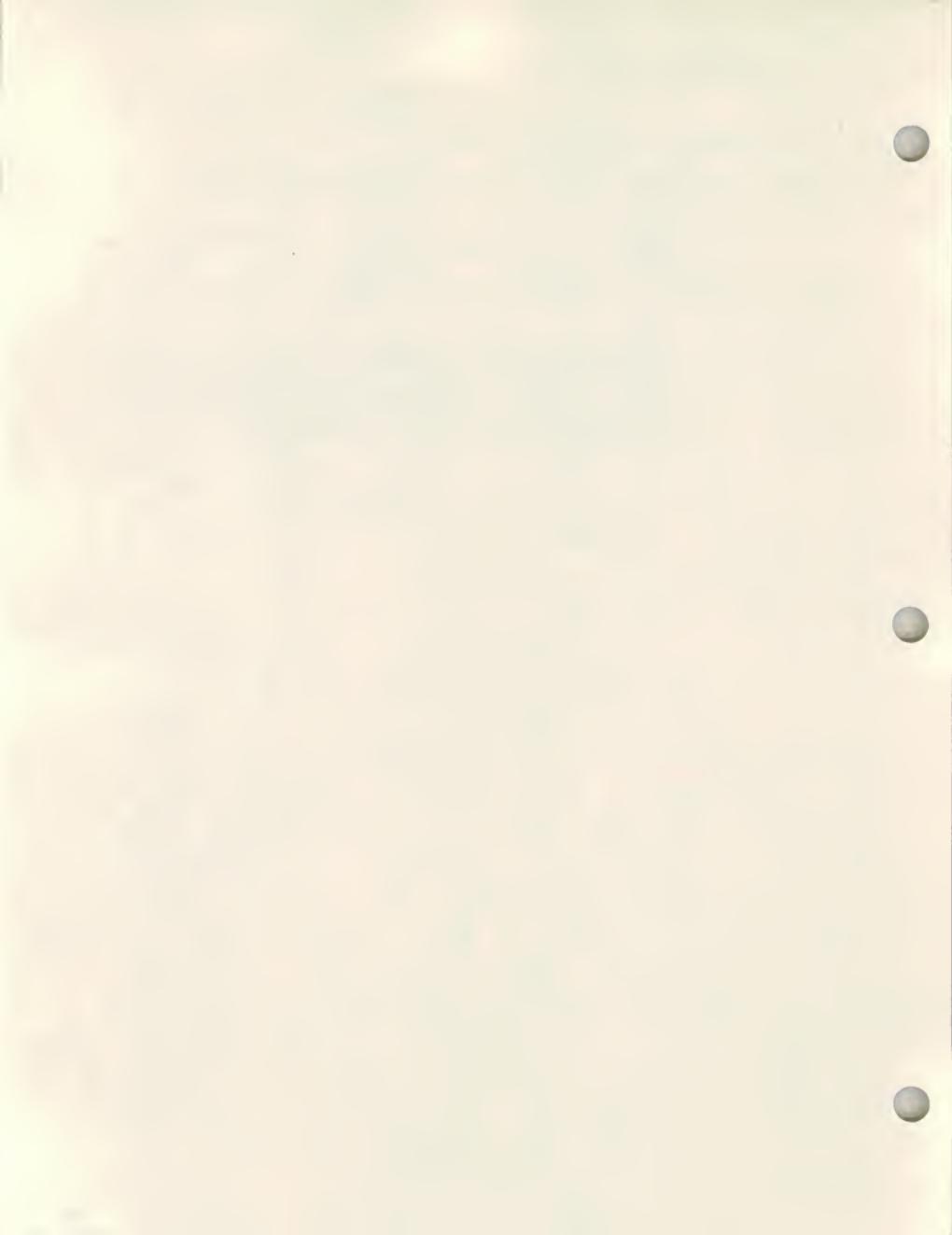
GEOGRAPHIC MARKETS

- One hundred percent of CompuServe's fiscal 1987 revenue was derived from the U.S..
- CompuServe has branch offices in Irvine, Santa Clara, San Francisco, and Los Angeles (CA); Phoenix; Denver; Memphis; Miami; Atlanta; Louisville; Dallas and Houston; Columbus, Dayton, and Toledo (OH); Westport (CT); Washington, DC; Chicago; Indianapolis; Boston; Detroit; Minneapolis; St. Louis; Philadelphia and Pittsburgh (PA); Rochelle Park (NJ); and New York City.

COMPUSERVE INCORPORATED

COMPUTER HARDWARE AND SOFTWARE

- CompuServe has computer centers in Columbus and Dublin (OH). Equipment available at the centers include:
 - Forty DEC K1-10 processors running under CompuServe's proprietary operating system.
 - One SC-30M, running under CompuServe's proprietary operating system.
 - Access to the CompuServe network is provided locally in over 400 major U.S. metropolitan areas via leased lines. With WATS lines and Tymnet and Telenet supplemental networks, CompuServe can be accessed from virtually any domestic exchange. Via satellite link CompuServe can be accessed from 79 foreign countries.



FINANCIAL UPDATE TO PROFILE DATED MARCH 1984

COMPUSERVE INCORPORATED
5000 Arlington Centre Boulevard
Columbus, OH 43220
(614) 457-8600

Charles W. McCall, President and CEO
Wholly Owned Subsidiary of H&R Block,
Inc.
Total Employees: 737
Total Revenue, Fiscal Year End
4/30/85: \$68,862,000

COMPUSERVE INCORPORATED FIVE-YEAR REVENUE SUMMARY (\$ thousands)

ITEM \ FISCAL YEAR	4/85	4/84	4/83	4/82	4/81
Revenue	\$ 68,862	\$ 51,800	\$ 39,449	\$ 33,170	\$ 27,618
• Percent increase from previous year	33%	31%	19%	20%	N/A
Income before taxes	\$ 7,153	\$ 4,736	\$ 1,763	\$ 2,336	\$ 2,181
• Percent increase (decrease) from previous year	51%	169%	(25%)	7%	N/A

- CompuServe's fiscal 1985 revenue and pretax margin increases resulted from exceptional growth in revenue in the individual consumer market that typically uses computer resources during off-peak hours at relatively low incremental costs.
- Subscribers to CompuServe's Consumer Information Service increased 60% to 200,000 subscribers as of April 30, 1985. New videotex products and enhancements offered to the consumer marketplace include the following:
 - Easy Plex, the consumer electronic mail system, was enhanced to increase its flexibility and ease of use.
 - New data bases in areas ranging from health and medicine to sports information were added to the information services system, and financial and investment information data bases were expanded.
 - The Electronic Mall^{T.M.}, a joint venture with a yellow pages publisher, L. M. Berry, provides subscribers with computerized home shopping from national retail stores. The Electronic Mall is being expanded and will be marketed to other providers of videotex services.

COMPUSERVE INCORPORATED

- Travelshopper^{T.M.} provides subscribers with direct access to TWA's worldwide airline reservation system. Tickets are issued by a travel agent and can be sent to the subscribers home or business.
- Other videotex services introduced include on-line brokerage services from Quick & Reilly, a discount securities dealer; home banking in association with VideoFinancial Services, a consortium of seven banking organizations; and international funds transfer for overseas credit union members through NCR Universal Credit Union.
- CompuServe also entered the point-of-sale information market and signed an agreement with VISA to provide computerized support for retail credit authorization and verification of charge card sales. Similar agreements were signed with other private credit issuers.
- CompuServe's value-added communications and network services to corporations, governmental organizations, and financial institutions were expanded and an Electronic Mail capability was added to Interchange, the private videotex service.
- CompuServe's network services were expanded in 1985 with the addition of nearly 300 new telecommunications nodes. The network is currently accessible by a local phone call from more than 200 U.S. cities, and via international carriers from 196 foreign countries. Supplemental telecommunications networks provide local access to CompuServe from more than 600 cities in the U.S. and Canada. Additional DEC mainframe computers were installed in CompuServe's computer centers in Columbus and Dublin (OH) bringing the total to 33 central processing units.

SOURCE OF REVENUE

- One hundred percent of CompuServe's fiscal 1985 revenue was derived from remote computing processing services in the U.S.

COMPANY HIGHLIGHT

COMPUERVE INCORPORATED
5000 Arlington Centre Boulevard
Columbus, OH 43220
(614) 457-8600

Jeffrey M. Wilkins, President
Wholly Owned Subsidiary of H&R Block,
Inc.
Total Employees: 550
Total Revenue Fiscal Year End
4/30/83: \$39,449,000

THE COMPANY

- CompuServe Incorporated, founded in 1969, provides processing services, electronic mail, videotex services, and related services through its remote computing network.
 - The company was acquired by H&R Block, Inc. in May 1980 and now operates as a wholly owned subsidiary.
 - In fiscal 1983 CompuServe derived approximately \$100,000 of its revenue from another H&R Block subsidiary, Block Management Company.
- Revenue for fiscal 1983 reached \$39.4 million, a 19% increase over the fiscal 1982 revenue of \$33.2 million. Operating profit was \$1.8 million, a decrease of 25% from \$2.3 million in 1982. A three-year revenue summary of CompuServe's business since its acquisition by H&R Block follows:

COMPUSERVE INCORPORATED

COMPUSERVE INCORPORATED
THREE-YEAR REVENUE SUMMARY
(\$ thousands)

ITEM	FISCAL YEAR			
		4/83	4/82	4/81
Revenue		\$ 39,449	\$ 33,170	\$ 27,618
. Percent increase from previous year		19%	20%	N/A
Income before taxes		\$ 1,763	\$ 2,336	\$ 2,181
. Percent increase (decrease) from previous year		(25%)	7%	N/A

- CompuServe's fiscal 1983 revenue increase was due to the overall growth of its computer services business segments. Their earnings decline was due primarily to CompuServe's planned expansion of its telecommunications network and the increased promotion of its Information Service.
- CompuServe provides its services through the following main areas of focus:
 - CompuServe Network Services formed in August 1982.
 - CompuServe ~~Information~~ Services formed in 1979.
 - CompuServe Business Information Services formed in 1969.
 - CompuServe Executive Information Services formed in 1983.
- As of April 1983 CompuServe had 550 employees. There are currently 564 employees.
- Major competitors include Dun & Bradstreet Computing, Tymshare, ADP, and Source Telecomputing. GTE Telenet and Tymshare's Tymnet compete with CompuServe's Network Services and their Value-Added Network (VAN).

KEY PRODUCTS AND SERVICES

- CompuServe offers access to applications programs, videotex, computer languages, data bases, processing services, and telecommunications services through its business areas:
 - CompuServe's Consumer Information Services is offered to individuals who own personal computers such as Apple II_s, II+_s, and III_s; Commodore 64_s, VIC_s, and PET_s; and Radio Shack TRS-80_s.

COMPUSERVE INCORPORATED

- As of April 1983 the videotex service, which turns home telephone and television sets into information retrieval systems, had over 50,000 subscribers. There are currently over 100,000 consumers using this service. Videotex services offered to the consumer marketplace include: banking, airline schedules, health and medical information, family counseling services, AP wire services, and entertainment.
- Individuals may use CompuServe's videotex services to shop, bank, conduct research, correspond, and communicate with others in live interactive formats.
 - Subscribers will be able to retrieve news using a key word search on a news service scheduled for release in late 1984.
- Pricing for this service is \$39.95 for a subscription and between \$6 and \$11 per hour.
 - CompuServe's Executive Information Services sells to commercial and corporate videotex clients. The service is designed to provide executives with business information that is useful for personal and corporate portfolio management, as well as for long-range planning and merger/acquisition strategies.
- The Executive Information Services can be accessed by most computer terminals and communicating word processors without machine-specific software or through CompuServe's Professional Connection hookup for IBM PC and Compaq users.
- The Professional Connection gives PC/Compaq users additional features such as automatic dialing and sign-on, instant access to any area of service, error-free uploading and downloading of data, programmed function keys to select menu items, and printer support.
- The Executive Information Services provides a variety of information to its users, including:
 - Updated, selected price quotations on a continuous 20-minute delayed basis for more than 9,000 security issues, including the high, low, closing, volume, and net changes for the New York Stock Exchange, American Exchange, and over-the-counter securities.
 - Standard and Poor's information on more than 3,000 companies.
 - Value Line Data Base II, from Valueline of New York, which enables users to analyze the performance of 1,700 corporations in various industries.
 - A demographic data base that provides current detailed census information on any area of the U.S.

COMPUSERVE INCORPORATED

- Electronic conferencing and professional forums.
- Electronic communications featuring instantaneous messaging via CompuServe's InfoPlex Electronic Mail Service and hard-copy delivery throughout the U.S. via the U.S. Postal Service's E-COM system.
 - . Pricing for the Executive Information Services is \$89.95 to \$138.95 for a subscription and between \$6 and \$15 per hour.
- CompuServe's Consumer and Executive videotex services are marketed through a retail distribution network that includes large retailers such as Sears and Service Merchandise.
 - The videotex service is delivered through CompuServe's Telecommunications Network, which reached over 200 cities in fiscal 1983.
 - On-line TODAY, CompuServe's videotex magazine, with total circulation in excess of 100,000, enables users to contact advertisers electronically through the magazine's Bounce Back inquiry system.
- New videotex offerings include:
 - A videotex service for executives; it is available to business professionals owning microcomputers.
 - A service for regulatory affairs professionals (titled FOI Newsline), which will provide information from the Food & Drug Administration's Federal Register Notices, FDA news releases and regulatory letters, and information on recently approved and approvable drugs and devices.
 - A Periodical Guide for Computerists, which will list bibliographic information from 25 major microcomputer magazines.
 - In January 1984 CompuServe introduced Interchange, a private videotex information service for corporations and government agencies. Interchange's applications include office project scheduling, job listings, training programs, newsletters, and dissemination of high-level management information.
- CompuServe's Business Information Services offers businesses access to both application programs and data bases. Customized programs are also available. Software available on the network is shown in the exhibit.
 - CompuServe's Network Services is a value-added network (VAN) that offers telecommunications services to over 50 clients. The VAN service, from which CompuServe derived approximately 5% of its fiscal 1983 revenue, provides the following:

EXHIBIT

NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none"> ● OPERATING ENVIRONMENT <ul style="list-style-type: none"> - 21 DIGITAL EQUIPMENT CORPORATION K1-10S AND K1-20S ● PROGRAMMING LANGUAGES SUPPORTED <ul style="list-style-type: none"> - APL - BASIC/X BASIC - COBOL - FORTRAN, F10, XF4 - MACRO - ALGOL - FASBOL - SIMULA - SNOBOL - BLISS-10 ● DATA MANAGEMENT SOFTWARE <ul style="list-style-type: none"> - SYSTEM 1022 - QUBIT - ECL/B0 ● DATA BASES AVAILABLE <ul style="list-style-type: none"> - BOUOTE - CITIBASE - - VALUE (STOCK PRICES) - VALUELINE ● INVESTMENT BANKING, FINANCIAL PLANNING AND ANALYSIS <ul style="list-style-type: none"> - FACTS - CUFFS - CFA II - SELECT - VALREP - EMPIRE - PLAN II - ALCAR FINANCIAL MODELS - SECONDARY FINANCIAL MANAGEMENT APPLICATIONS (AMTIZ, APB21, ATROI, BNDIS, BOND, CURVB, DPREC, FINHH, FINTOL, FORCAS, INVST, LEASE, LOAN, MORTG, PRJAN, PRJEV, PRJFH, RESRV, SEIND, STKBD, YIELD) ● ELECTRONIC MAIL <ul style="list-style-type: none"> - INFOPLEX ● PERSONAL COMPUTING <ul style="list-style-type: none"> - COMPUSERVE INFORMATION SERVICES ● BANK MANAGEMENT SERVICES <ul style="list-style-type: none"> - BPMS (BOND PORTFOLIO MANAGEMENT SYSTEM) - MONEY MARKET SYSTEM - SPREAD - SWAP - TRADES - ALMS (ASSET/LIABILITY SYSTEM) - BID - BDS (BANKING DATA SERVICE) 	<ul style="list-style-type: none"> ● MANAGEMENT SCIENCES <ul style="list-style-type: none"> - STATS II - SPSS-10 - BMD - BMDP - AUTOBOX - SIBYL/RUNNER - PEC (TIME SERIES PROCESSOR) - MINOS (LINEAR PROGRAMMING) - PAC II (PROJECT MANAGEMENT) - PERTG (PROJECT MANAGEMENT) - CPM - CPMGRA - X-11, X-11Q ● STRATEGIC PLANNING MODELS <ul style="list-style-type: none"> - ACQUIMERGE - EQUIVAL - STRATAVAL - AFFORDABLE DIVIDEND ANALYZER - AFFORDABLE SALES GROWTH - HISTORICAL ANALYZER - V47 SYSTEM ● GRAPHICS <ul style="list-style-type: none"> - VISUAL - TEXTPLOT - COGO ● RESEARCH AND DEVELOPMENT <ul style="list-style-type: none"> - RSM (RESPONSE SURFACE METHODOLOGY) - COED (COMPUTER-OPTIMIZED EXPERIMENTATION DESIGN) - MCP (MULTIPLE CORRELATION PACKAGE) - PROCAP (PROCESS CAPABILITY PROGRAM) - GNL (GENERAL NON-LINEAR OPTIMIZER) ● MINING INDUSTRY AND ENGINEERING <ul style="list-style-type: none"> - EXPLORE - BASE - CONTOUR - SURFACE - CROSS SECTION - CELL MAP - PERSPECTIVE - MED SYSTEM - SECONDARY ENGINEERING APPLICATIONS (COUNTY, DEED, ICAP, JOBCOST, MANUSC, ORFRAM, PIPNET, SHORTF, SSS, THERMAL) - DRILLHOLE DATA BASE - MINERAL INVENTORY - MINE PLANNING AND DESIGN - FINANCIAL ANALYSIS - GIS (GEOPHYSICAL INTERPRETATION SYSTEM) - STRESS - MINECO ● TEXT EDITORS <ul style="list-style-type: none"> - ICS (INTEGRATED COMMAND SYSTEM) - FILGE (FILE GENERATOR AND EDITOR) - RUN FIO (TEXT PROCESSING) - CREF - REACT

COMPUSERVE INCORPORATED

- Access to CompuServe's data communications network in more than 200 cities in the U.S. and Canada.
- Protocol conversion, emulating almost any ASCII asynchronous terminal for a wide variety of host computers.
- Private networks to provide for voluminous data transmissions.
- Electronic mail provided through CompuServe's InfoPlex service.
- In November 1983 COMP-U-CARD (CUC) signed a five-year, \$10 million agreement with CompuServe to have CUC data bases maintained on Compu-Serve's network. The data base will be used for CUC's telephone shopping, credit card, and Comp-U-Claim services.
 - Other new service and product offerings include:
 - Expansion of CompuServe's travel and educational services.
 - The IRS Tax Payment Information data base.

INDUSTRY MARKETS

- CompuServe's fiscal 1984 revenue was derived from across industry sectors.

GEOGRAPHIC MARKETS

- One hundred percent of CompuServe's fiscal 1984 revenue was derived from the U.S.
- CompuServe has 30 sales branch offices, including the following located in major cities: Atlanta, Chicago, Los Angeles, and New York.

COMPUTER HARDWARE AND SOFTWARE

- CompuServe has computer centers in Columbus and Dublin (OH). Equipment available at the centers include:
 - 32 DEC KI-10 processors running under CompuServe's proprietary operating system.
 - Access to the CompuServe network is provided locally in over 400 major metropolitan areas in all 50 states via leased lines, WATS lines, and Tymnet and Telenet.

FINANCIAL UPDATE TO HIGHLIGHT DATED MARCH 1984

COMPUSERVE INCORPORATED
5000 Arlington Centre Boulevard
Columbus, OH 43220
(614) 457-8600

Jeffrey M. Wilkins, Chairman and CEO
Charles W. McCall, President
Wholly Owned Subsidiary of H&R Block,
Inc.

Total Employees: 550
Total Revenue, Fiscal Year End
4/30/84: \$51,800,000

COMPUSERVE INCORPORATED
FOUR-YEAR REVENUE SUMMARY
(**\$ thousands**)

ITEM \ FISCAL YEAR	4/84	4/83	4/82	4/81
Revenue • Percent increase from previous year	\$ 51,800 31%	\$ 39,449 19%	\$ 33,170 20%	\$ 27,618 N/A
Income before taxes • Percent increase (decrease) from previous year	\$ 4,736 169%	\$ 1,763 (25%)	\$ 2,336 7%	\$ 2,181 N/A

- CompuServe's Network Services were strengthened in fiscal 1984 with the addition of over 200 communications modes for subscriber access and the installation of an earth station for sending and receiving satellite transmissions.
- Subscribers to CompuServe's Consumer Information Service more than doubled to 120,000 at April 30, 1984. CompuServe estimates this represents a 50% market share. New offerings include:
 - The Electronic Mall^{T.M.}, a joint venture with a yellow pages publisher, L. M. Berry, provides subscribers with computerized home shopping from national retail stores.
 - Trans World Airlines' PARS reservation service provides subscribers with on-line access to airline schedules, fares, and ticketing. It will be available in the Fall of 1984.
- CompuServe also entered the point-of-sale information market and signed an agreement with VISA to provide computerized support for retail credit authorization and verification of charge card sales. A similar agreement was signed with Bank One, a Columbus (OH) electronic banking service.

COMPUSERVE INCORPORATED

SOURCE OF REVENUE

- One hundred percent of CompuServe's fiscal 1984 revenue was derived from remote computer processing services in the U.S.

2 of 2
August 1984

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INPUT

COMPANY HIGHLIGHT

COMPUSERVE INCORPORATED
5000 Arlington Centre Boulevard
Columbus, OH 43220
(614) 457-8600

Jeffrey M. Wilkins, President
Wholly Owned Subsidiary of H&R Block,
Inc.
Total Employees: 550
Total Revenue Fiscal Year End
4/30/83: \$39,449,000

THE COMPANY

- CompuServe Incorporated, founded in 1969, provides processing services, electronic mail, videotex services, and related services through its remote computing network.
 - The company was acquired by H&R Block, Inc. in May 1980 and now operates as a wholly owned subsidiary.
 - In fiscal 1983 CompuServe derived approximately \$100,000 of its revenue from another H&R Block subsidiary, Block Management Company.
- Revenue for fiscal 1983 reached \$39.4 million, a 19% increase over the fiscal 1982 revenue of \$33.2 million. Operating profit was \$1.8 million, a decrease of 25% from \$2.3 million in 1982. A three-year revenue summary of CompuServe's business since its acquisition by H&R Block follows:

COMPUSERVE INCORPORATED

COMPUSERVE INCORPORATED THREE-YEAR REVENUE SUMMARY (\$ thousands)

ITEM	FISCAL YEAR	4/83	4/82	4/81
Revenue		\$ 39,449	\$ 33,170	\$ 27,618
. Percent increase from previous year		19%	20%	N/A
Income before taxes		\$ 1,763	\$ 2,336	\$ 2,181
. Percent increase (decrease) from previous year		(25%)	7%	N/A

- CompuServe's fiscal 1983 revenue increase was due to the overall growth of its computer services business segments. Their earnings decline was due primarily to CompuServe's planned expansion of its telecommunications network and the increased promotion of its Information Service.
- CompuServe provides its services through the following main areas of focus:
 - CompuServe Network Services formed in August 1982.
 - CompuServe Information Services formed in 1979.
 - CompuServe Business Information Services formed in 1969.
 - CompuServe Executive Information Services formed in 1983.
- As of April 1983 CompuServe had 550 employees. There are currently 564 employees.
- Major competitors include Dun & Bradstreet Computing, Tymshare, ADP, and Source Telecomputing. GTE Telenet and Tymshare's Tymnet compete with CompuServe's Network Services and their Value-Added Network (VAN).

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COMPUSERVE INCORPORATED

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COMPUSERVE INCORPORATED

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COMPUSERVE INCORPORATED

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- Protocol conversion, emulating almost any ASCII asynchronous terminal for a wide variety of host computers.
- Private networks to provide for voluminous data transmissions.
- Electronic mail provided through CompuServe's InfoPlex service.
- In November 1983 COMP-U-CARD (CUC) signed a five-year, \$10 million agreement with CompuServe to have CUC data bases maintained on Compu-Serve's network. The data base will be used for CUC's telephone shopping, credit card, and Comp-U-Claim services.
 - Other new service and product offerings include:
 - Expansion of CompuServe's travel and educational services.
 - The IRS Tax Payment Information data base.

INDUSTRY MARKETS

- CompuServe's fiscal 1984 revenue was derived from across industry sectors.

GEOGRAPHIC MARKETS

- One hundred percent of CompuServe's fiscal 1984 revenue was derived from the U.S.
- CompuServe has 30 sales branch offices, including the following located in major cities: Atlanta, Chicago, Los Angeles, and New York.

COMPUTER HARDWARE AND SOFTWARE

- CompuServe has computer centers in Columbus and Dublin (OH). Equipment available at the centers include:
 - 32 DEC K1-10 processors running under CompuServe's proprietary operating system.
 - Access to the CompuServe network is provided locally in over 400 major metropolitan areas in all 50 states via leased lines, WATS lines, and Tymnet and Telenet.

*Dave
Bell
SF Office
Salesman
777-2751*

COMPANY HIGHLIGHT

COMPUSERVE INCORPORATED
5000 Arlington Centre Blvd.
Columbus, OH 43220
(614) 457-8600

Jeffrey M. Wilkins, President
Wholly owned subsidiary of
H & R Block
Total Employees: 400
Total Revenue, Fiscal Year End
12/31/80: \$25,500,000*
Computer Services Revenue:
\$24,990,000*

PRINCIPAL BUSINESS CompuServe Incorporated provides remote computing services.

FINANCIALS Until May 1980, CompuServe Incorporated was a publicly held company ending its fiscal year on 12/31. CompuServe's fiscal year end changed to 4/30 with its acquisition by H & R Block. (For comparative purposes, revenues have been calendarized.)

	1980	1979	1978	1977
		(\$ thousands)		
- Total revenue	\$25,500*	\$19,609	\$15,835	\$14,332
- Computer services revenue	24,990*	19,293	15,732	14,212

SOURCES OF COMPUTER SERVICES REVENUE

- 100% Remote processing services.

PRODUCTS AND SERVICES

- CompuServe offers access to both application programs and data bases over its network and has about 700 clients. The use of proprietary products and supporting programs account for approximately 80% of CompuServe's business, with the sale of raw computer time accounting for the other 20%. Software available on the network is shown in the exhibit.
- In July 1980, CompuServe began offering the CompuServe Information Service to owners of personal computers and terminals such as Radio Shack's TRS-80s. This service turns home telephones and television sets into information retrieval systems.

*will be opening up
new sales in next
year*

*to sales market
staff*

* INPUT estimate

EXHIBIT

NETWORK PROFILE

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COMPUSERVE INCORPORATED

- The Compuserve Information Service offers program timesharing, electronic mail, software exchange, newspapers and AP wire service, bank-at-home, family information and entertainment.
- Available programs include File Generator and Editor, BASIC, FORTRAN, APL, PASCAL, FINTOL (a financial problem solver), MicroQuote (a stock quote service) and a variety of computer games.
- CompuServe management anticipates that this service will account for 10% of 1981 revenue. There are currently about 12,000 subscribers.

INDUSTRY MARKETS

- CompuServe derives its revenue as follows:

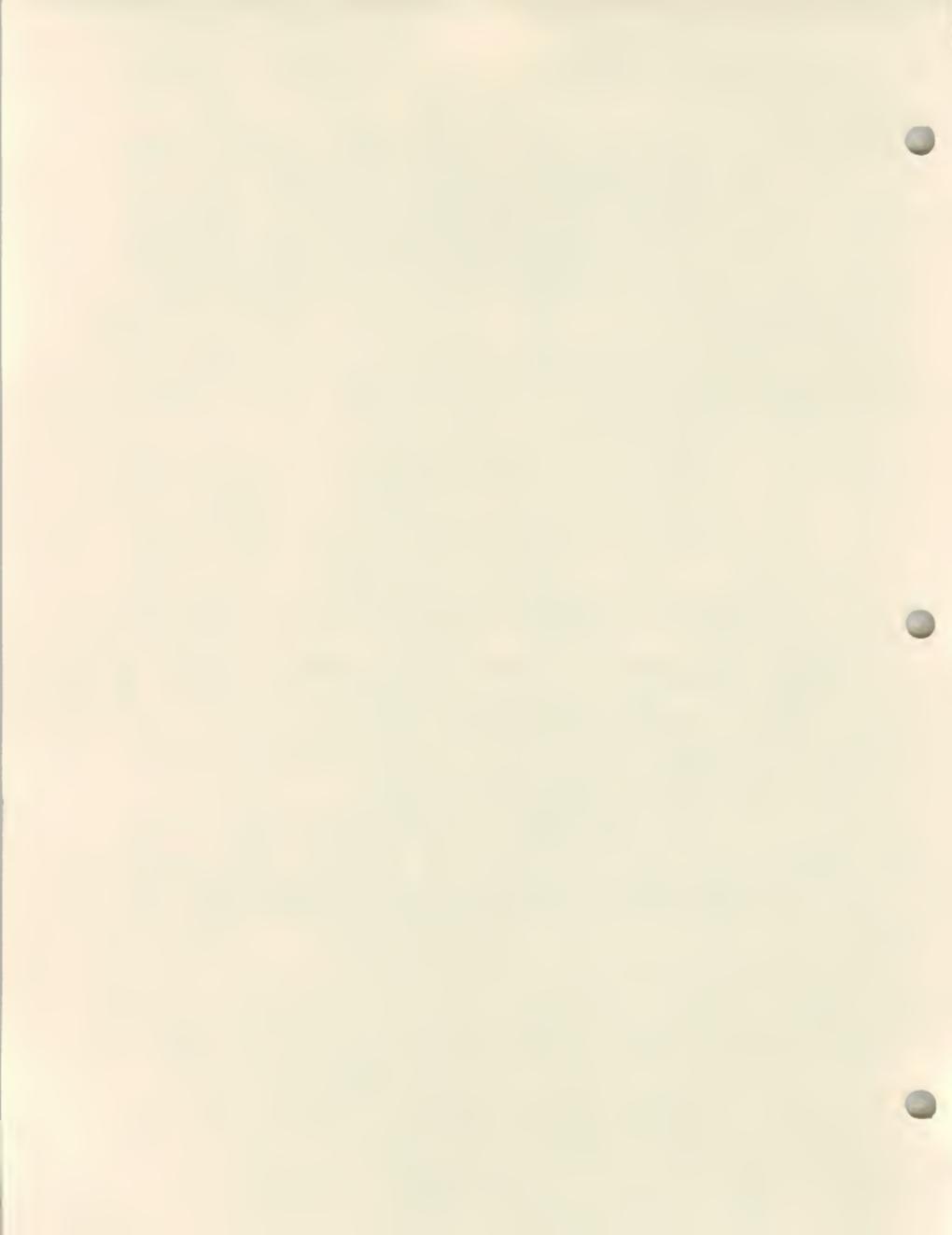
.	Manufacturing	34%
.	Government	21
.	Banking and finance	16
.	Services	7
.	Retail	6
.	Mining	5
.	Insurance	3
.	Engineering	2
.	Other	<u>6</u>
		100%

- Management recognizes a trend toward the increase of its nongovernment business.

GEOGRAPHIC MARKETS One hundred percent of CompuServe's revenue is derived from sources in the U.S.

COMPUTER HARDWARE AND SOFTWARE

- CompuServe has computer centers in Columbus and Dublin, OH. Equipment available at the centers includes:
 - Twenty-one Digital Equipment Corporation KI-10s and KL-20s operating under CompuServe's Integrated Command System.
- Access to the network is provided locally in 260 major metropolitan areas in all 50 states, and via WATS coverage throughout the continental U.S.



COMPANY HIGHLIGHT

COMPUSERVE INC.
5000 Arlington Centre Blvd.
Columbus, OH 43220
(614) 457-8600

Jeffrey M. Wilkins, President
Wholly Owned Subsidiary Of
H & R Block
Total Employees: 348
Total Revenues, Fiscal Year End
12/31/79: \$19,608,797
Computer Services Revenue:
\$19,293,162

THE COMPANY

- Until May 1980, CompuServe Inc. was a publicly held remote computing company. Effective May 12, CompuServe merged into CI Corporation, a subsidiary of H & R Block Inc. CompuServe will retain its original name.
- CompuServe's total revenues increased 24% from 1978 to 1979, while net income increased 80% during the same period. A summary of CompuServe's revenues prior to the merger follows:

COMPUSERVE
FIVE-YEAR FINANCIAL SUMMARY
(**\$000**)

ITEM	FISCAL YEAR	1979	1978	1977	1976	1975
Revenues		\$19,609	\$15,835	\$14,332	\$11,397	\$ 8,463
. Percent increase from previous year		24%	10%	26%	35%	17%
Income before income taxes		\$ 2,735	\$ 1,369	\$ 1,664	\$ 1,589	\$ 401
. Percent increase (decrease) from previous year		100%	(18%)	5%	296%	(48%)
Net income		\$ 1,645	\$ 914	\$ 1,254	\$ 1,194	\$ 355
. Percent increase (decrease) from previous year		80%	(27%)	5%	236%	(46%)
Earnings per share		\$ 1.41	\$ 0.81	\$ 1.10	\$ 1.09	\$ 0.33
. Percent increase (decrease) from previous year		74%	(26%)	1%	230%	(46%)

COMPANY HIGHLIGHT/COMPUERVE INC.

- CompuServe's management explains that its revenue increase resulted from higher sales to private-sector customers and an expansion of its private-sector customer base. Average revenues per customer were approximately \$29,000.
- CompuServe had approximately 700 clients in 1979. Eighty-seven of those clients accounted for roughly 72% of revenues. Government contracts represented approximately 21% of revenues, including a contract with the U.S. Postal Service, which of itself accounted for 9% of CompuServe's revenues.
- During 1979, two long-term contracts were secured.
 - The first was a two-and-one-half-year contract with the Census Bureau of the U.S. Department of Commerce, worth \$1.6 million.
 - The second was a three-year subcontract worth \$2.5 million to provide teleprocessing support services to Chicago Aerial Survey, a division of American Appraisal Associates, Inc.
- In June 1980, Tandy Corporation began marketing a new service based on its TRS-80 personal computer. The device, called the TRS-80 Videotex, will turn any home telephone and television set into an information retrieval system.
 - CompuServe is offering CompuServe Information Service as part of Videotex. The Videotex user has the option of accessing CompuServe's MicroNET from his/her local telephone. MicroNET offers program timesharing, electronic mail, software sales and exchange through the system.
 - . Available programs include File Generator and Editor, Basic, Fortran, APL, Pascal, Fintol (a financial problem solver), Micro-Quote (a stock quote service) and a variety of computer games.
 - CompuServe management has high expectations for this product.
- There are 348 CompuServe employees divided by function as follows:

-	Marketing sales	68
-	Software services/customer support	191
-	Computer operations	43
-	General and administrative	46
Total		348
- CompuServe management considers its main competition to stem from vendors of in-house systems. In addition, ADP and Data Resources, Inc. compete with CompuServe.

COMPANY HIGHLIGHT/COMPUSERVE INC.

KEY PRODUCTS AND SERVICES

- Ninety-eight percent of CompuServe's 1979 revenues were derived from processing services and 2% from the sale of communication and other peripheral equipment. The chart below contains a five-year summary of operations.

**COMPUSERVE
SUMMARY OF OPERATIONS
(1975-1979)**

ITEM	FISCAL YEAR	1979	1978	1977	1976	1975
Revenues						
Computer services	\$19,293	\$15,732	\$14,212	\$11,336	\$ 8,435	
• Percent increase from previous year	23%	11%	25%	34%	18%	
Other	\$ 316	\$ 104	\$ 119	\$ 61	\$ 29	
• Percent increase (decrease) from previous year	204%	(13%)	95%	110%	(49%)	

- CompuServe offers applications as well as data bases over its network. The use of proprietary products and supporting programs accounts for approximately 80% of CompuServe's business, the selling of computer time the other 20%. A chart of the software offered over its network is contained in Exhibit A.
- Processing services for the U.S. Government include:
 - An inventory and management information system to control the millions of documents associated with the 1980 national census. This two-and-one-half-year contract was awarded to CompuServe by the Census Bureau of the U.S. Department of Commerce.
 - For the Interstate Commerce Commission, CompuServe provides tele-processing services, training and technical support for interactive data base management systems, statistical and analytical applications and large-scale remote batch operations.

INDUSTRY MARKETS

- CompuServe derives its revenues according to the following distribution:

COMPANY HIGHLIGHT/COMPUSERVE INC.

EXHIBIT A
COMPUSERVE

APPLICATIONS AVAILABLE ON PROCESSING SERVICE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none">• OPERATING ENVIRONMENT<ul style="list-style-type: none">– 21 DIGITAL EQUIPMENT CORPORATION K1-10s AND K1-20s• PROGRAMMING LANGUAGES SUPPORTED<ul style="list-style-type: none">– APL– BASIC/X BASIC– COBOL– FORTRAN– MACRO-10– ALGOL– FASBOL– SIMULA– SNOBOL– PASCAL• DATA MANAGEMENT SOFTWARE<ul style="list-style-type: none">– SYSTEM 1022– QUBIT• DATA BASES AVAILABLE<ul style="list-style-type: none">– B QUOTE– CITIBASE– COMPSTAT II– SITE II– VALUE– VALUE LINE• INVESTMENT BANKING, FINANCIAL PLANNING AND ANALYSIS<ul style="list-style-type: none">– FACTS– CUFFS– AQUIMERGE/EQUIVAL– CFA II• BANKING MANAGEMENT SERVICES<ul style="list-style-type: none">– BPMS (BOND PORTFOLIO MANAGEMENT SYSTEM)– MONEY MARKET SYSTEM– YIELD SPREAD ANALYSIS– BOND QUOTE– CREDIT SPREADING SYSTEM– BOND SWAP SYSTEM– BOND TRADE SYSTEM– ALMS (ASSET/LIABILITY SYSTEM)	<ul style="list-style-type: none">• MANAGEMENT SCIENCES<ul style="list-style-type: none">– STATS II– SPSS-10– BMD– BMDP– AUTOBOX– SIBYL/RUNNER– PEC (TIME SERIES PROCESSOR)– MINOS (LINEAR PROGRAMMING)– PAC II (PROJECT MANAGEMENT)• GRAPHICS<ul style="list-style-type: none">– VISUAL– TEXTPLOT– COGO• RESEARCH AND DEVELOPMENT<ul style="list-style-type: none">– RSM (RESPONSE SURFACE METHODOLOGY)– COED (COMPUTER OPTIMIZED EXPERIMENTATION DESIGN)• MINING INDUSTRY AND ENGINEERING<ul style="list-style-type: none">– EXPLORE– CONTOUR– SURFACE– CROSS SECTION– CELL MAP– PERSPECTIVE– MEDSYSTEM– DRILL HOLE DATA BASE– MINERAL INVENTORY– MINE PLANNING AND DESIGN– FINANCIAL ANALYSIS– GIS (GEOPHYSICAL INTERPRETATION SYSTEM)– STRESS• MESSAGE SWITCHING<ul style="list-style-type: none">– INFOPLEX• PERSONAL COMPUTING<ul style="list-style-type: none">– COMPUSERVE INFORMATION SERVICE– MICRO NET

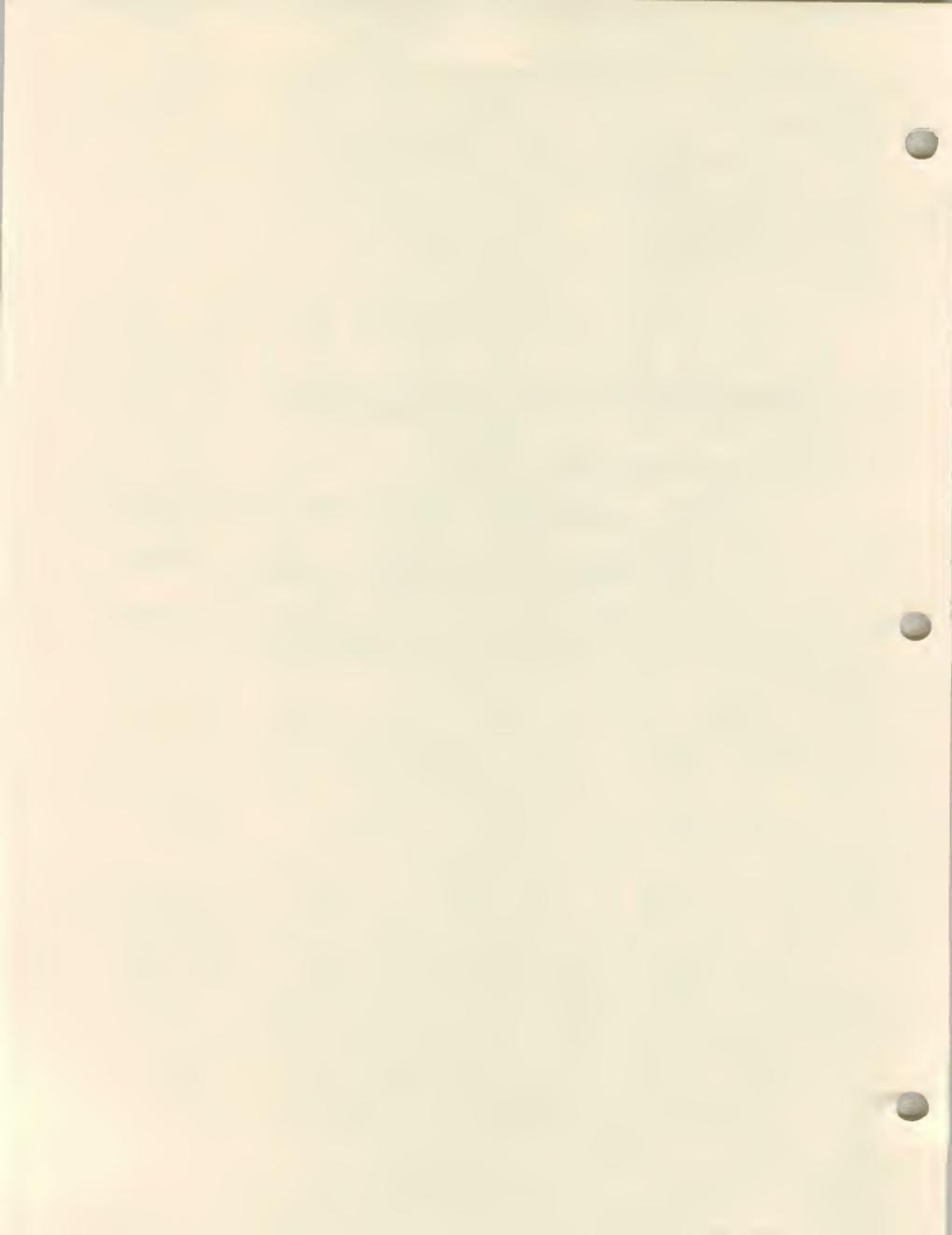
COMPANY HIGHLIGHT/COMPUERVE INC.

-	Manufacturing	34%
-	Government	21
-	Banking and finance	16
-	Services	7
-	Retail	6
-	Mining	5
-	Insurance	3
-	Engineering	2
-	Other	6
	Total	100%

GEOGRAPHIC MARKETS One hundred percent of CompuServe's revenue is derived from sources in the U.S. CompuServe has no international business.

COMPUTER HARDWARE AND SOFTWARE

- CompuServe has computer centers in Columbus and Dublin, Ohio. Equipment available at the centers includes:
 - Twenty-one Digital Equipment Corporation KI-10s and KL-20s operating under CompuServe's Integrated Command System.
- Local access to the network is provided in 230 major metropolitan areas in all 50 states, with WATS coverage throughout the continental U.S.



COMPANY

COMPUSERVE

FY

12/31

FISCAL YEAR	ANNUAL REVENUE (\$millions)	ANNUAL GROWTH RATE (%)	COMMENTS
1971	1	100	
1972	2	150	
1973	4	75	ACQUIRED SMALL TEXAS COMPANY
1974	7	13	
1975	8	38	
1976	11	27	
1977	14		
		59 %	Previous years Average
1978	17	21 %	1977-1978
		15 %	Max Rate Projected Min Rate Projected
	Max Revenue	Min Revenue	Avg. Revenue
1979	20		
1980	22		
1981	26		
1982	30		
1983	35		



COMPANY HIGHLIGHT

COMPUSERVE INCORPORATED
5000 Arlington Center Blvd.
Columbus, OH 43200
(614) 457-8600

Jeffrey M. Wilkins, President
Public corporation, OTC
Total employees: 247
Total revenues, fiscal year end
12/31/76: \$11,397,000

12/31/77: 14,331,682

THE COMPANY

- CompuServe Incorporated was incorporated as Compu-Serv Network, Inc., a wholly owned subsidiary of Ilex Corp., in Ohio in June 1969. It provided contract programming and interactive data processing services through its computer facility in Columbus, Ohio. In 1975, Compu-Serv Network, Inc. went public and stock was issued to Ilex shareholders. In May 1977, the name was changed to CompuServe Incorporated.
- The company currently provides remote batch and interactive processing to more than 750 customers in 25 states. Revenues grew from \$8.5 million in 1975 to \$11.4 million in 1976, a 34% growth. New earnings during the same period, grew from \$355,000 to \$1.2 million, an increase of 240%.
- With a very active and aggressive marketing program, CompuServe has sales offices serving 35 U.S. cities.
- More than 50% of the company's employees concentrate on marketing, 30% on operations, 12% on administration, and 3% on research and development.

KEY PRODUCTS AND SERVICES

- Fifty percent of CompuServe revenues are derived from utility processing; the rest are product related. The company's software library has more than 75 software programs.
- Successful products include:
 - Rapid Response data base system. The most successful Compu-Serve product, Rapid Response incorporates message switching functions.
 - RSM-3 (Response Surface Methodology), an R&D tool to help companies expedite the experimental design, data analysis, and optimization of product characteristics.

COMPANY HIGHLIGHT/COMPUERVE INCORPORATED

- BPMS (Bond Portfolio Management System). This is designed to perform financial analysis to aid banks in increasing their yields on municipal, government, and agency bonds.
- CUFFS and FACTS These are cross-industry financial display and analysis programs.
- LIDIS This is a life insurance data information system.
- Other CompuServe programs include: System 1022, a data base manager; STATS, statistical subroutines; FILAGE, file generator and text editor; IRS, an information retrieval system; ICS, an integrated editor and system command language.
- CompuServe concentrates on selling its data base, financial and utility services to large corporations with over \$100 million in annual revenues.

APPLICATIONS CompuServe's product-related revenues are derived from the following applications:

- 80% business-related processing (e.g., data base and financial forecasting)
- 15% speciality applications (e.g., bond portfolio analysis)
- 5% engineering and scientific applications.

INDUSTRY MARKETS Although Compuserve currently serves 20 industries, nearly 50% of its annual revenues are derived from five industries, as shown below:

<u>Industry Served</u>	<u>Percentage of Total Revenue</u>
Services	11.4%
Government	10.6
Insurance	8.4
Chemical	7.9
Mining	7.5
Other 20 industries	<u>54.2%</u>
	<u>100.0%</u>

GEOGRAPHIC MARKETS

- CompuServe currently has 24 sales offices serving 35 metropolitan areas in the U.S. The offices are located in: Akron, Atlanta, Chicago, Cincinnati, Cleveland, Columbus, Dallas, Dayton, Detroit,

August 1977

COMPANY HIGHLIGHT/COMPUSERVE INCORPORATED

Houston, Indianapolis, Los Angeles, Louisville, Memphis, New Jersey, New York City, Palo Alto, Philadelphia, Pittsburgh, San Francisco, Stamford, St. Louis, Tucson, and Washington D.C.

- The CompuServe client base is nationwide with concentrations in the North Central and North Eastern regions.

COMPUTER HARDWARE AND SOFTWARE The company operates 11 DEC PDP/10s in Columbus, Ohio.

August 1977



COMPANY HIGHLIGHT

COMPU-SERV NETWORK, INC.
5000 Arlington Center Boulevard
Columbus, Ohio 43220
(614) 457-8600

Jeffrey M. Wilkins, President
Public corporation
Total and computer services sales
as of FY ending 12/75:
\$8,450,000

NUMBER OF EMPLOYEES engaged in computer services: 200

KEY PRODUCTS/SERVICES: Key product line consists of remote computing services for data management and financial management. Specific products by name include:

- CUFFS, a financial forecasting system
- System 1022, data base management system
- STATS, composed of statistical subroutines
- SSP, Scientific Subroutine Package, which consists of some 300 statistical and mathematical subroutines
- BPMS, Bond Portfolio Management System
- FILGE, File Generator and text editor, suited particularly to FORTRAN
- IRS, Information Retrieval System
- ICS, Integrated Command System, which combines editor with system command language
- LIDIS, Life Insurance Data Information System

Standard languages offered are BASIC, FORTRAN and COBOL. Special languages such as ALGOL and SNOBOL are also available.

APPLICATIONS: Compu-Serv offers data base management, scientific applications, and general business applications, such as inventory control budgeting and financial analysis. The most widely used applications are data base management and financial forecasting. Several of the products described above are applications-oriented.

INDUSTRY MARKETS: Nearly one-third of Compu-Serv's business is concentrated in the manufacturing industries, and another one-third in mining and engineering services. The balance of the firm's approximately 800 customers are distributed among insurance, government, education, distribution, banking/finance, medical/hospital, transportation and utilities industries.

GEOGRAPHIC MARKETS: Compu-Serv operates nationally. The majority of business is concentrated in the North Central region, where the company is headquartered. The Northeast is the next largest region of operation; the balance is distributed among the Pacific states, Midwest, South Central and Southeast regions.

COMPANY HIGHLIGHT/COMPU-SERV NETWORK, INC.

The Compu-Serv network links over 30 cities and branch offices are located in the following cities:

Brittain Square Building Room 203 1717 Brittain Road Akron, Ohio (216) 633-0016	200 West Monroe Suite 507 Chicago, Illinois 60606 (312) 782-5409
3445 Peachtree Road Suite 1090 Atlanta, Georgia 30326 (404) 231-1440 (404) 231-1313	5000 Arlington Centre Boulevard Columbus, Ohio 43220 (614) 457-8600
650 Northland Road Suite 6A Cincinnati, Ohio 45240 (513) 742-0500	Noel Page Building-Suite 1010 North Central Expressway Dallas, Texas 75206 (214) 369-9510
601 Rockwell Room 403 Cleveland, Ohio 44114 (216) 241-6818	Winters Bank Tower Suite 1215 Dayton, Ohio 45402 (513) 278-9494 or 278-9406
6100 North Keystone Avenue Suite 424 Indianapolis, Indiana 46220 (317) 257-4411	517 City National Bank Building Detroit, Michigan 48229 (313) 963-7474
250 Liberty Suite 222 Louisville, Kentucky 40202 (502) 585-4016	4311 Wilshire Boulevard Los Angeles, California 90010 (213) 936-2101
715 Park Avenue East Orange, New Jersey 07017 (212) 676-1300	2670 Union Avenue Extension Memphis, Tennessee 38112 (901) 452-8215
1270 Avenue of the Americas Suite 603 New York, New York 10020	760 Office Parkway St. Louis, Missouri 63141 (314) 872-8460
3 Gateway Center - Suite 1748 Pittsburgh, Pennsylvania 15222 (412) 391-8845	690 Market Street Suite 305 San Francisco, California 94104 (415) 777-2737
	3110 Columbia Pike Arlington, Virginia 22204 (703) 920-6280

COMPANY HIGHLIGHT/COMPU-SERV NETWORK, INC.

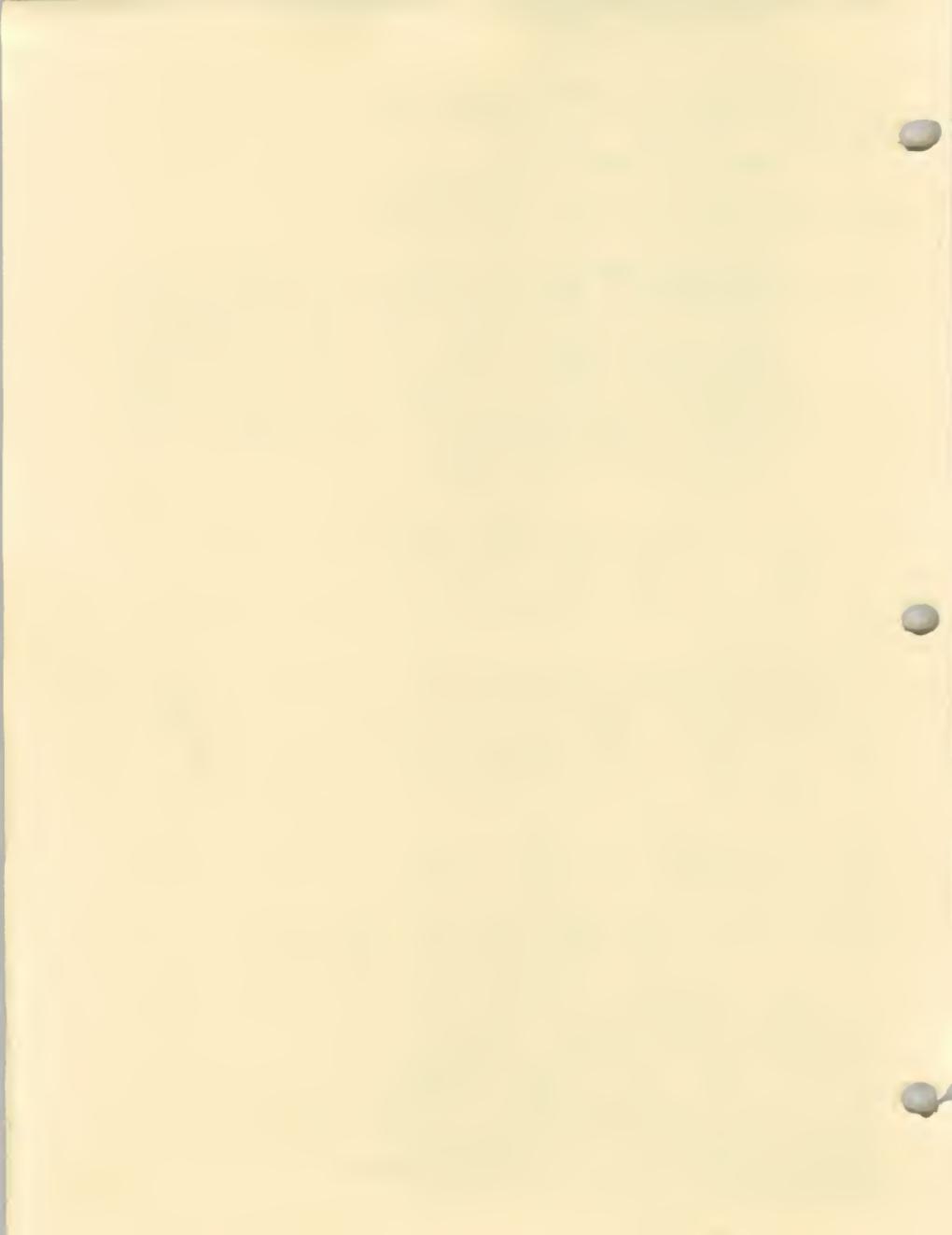
COMPUTER HARDWARE AND SOFTWARE:

9 DEC PDP 10s, with customized operating system

Over \$7,000,000 has been invested in hardware.

OVERALL ASSESSMENT AND TRENDS: A young and aggressive company, Compu-Serv has enjoyed consistent and diversified growth since it was founded in 1969 as a wholly owned subsidiary of ILEX Corporation. (During 1975 ILEX opted to concentrate its activities in auto leasing and life insurance.) Annual sales in 1972 were \$1.9 million, in 1973 they were \$3.9 million and \$7.2 million in 1974. At this rate, sales should reach \$24 million by 1980. The company has been concentrating on general purpose applications. As it expands however, it will become necessary to develop more proprietary applications and to identify the new sources of capital requirements that will be needed.

as of 2/20/76 stock up - etc 9-10 $\frac{1}{2}$ /share.
up from 5 ~~share~~ 6 weeks ago



COMPANY PROFILE

COMP-U-STAFF, INC.
One Investment Place
Towson, MD 21204
(301) 828-0788

Kathleen Cornell, President and CEO
Wholly Owned Subsidiary of
ADIA Services, Inc.
Total Employees: 600
Total Revenue, Fiscal Year End
12/31/88: \$34,000,000

The Company

Comp-u-Staff, Inc., established in 1978, provides professional services to Fortune 1000 companies.

- On January 12, 1988, Comp-u-Staff was acquired by ADIA Services, Inc. ADIA Services supplies temporary office, word processing, accounting, financial, and health personnel nationwide.
- On October 12, 1988, ADIA Services purchased Computer Dynamics, a professional services firm based in Detroit (MI). Computer Dynamics had revenue of approximately \$15 million in 1988. It now operates as a division of Comp-u-Staff.

Total 1988 revenue reached \$34 million, a 113% increase over 1987 revenue of \$16 million. Of the \$34 million in 1988 revenue, \$15 million was derived from Computer Dynamics.

As of January 1989, Comp-u-Staff had approximately 600 employees.

Comp-u-Staff's major competitors include Computer Task Group, CAP Gemini America, and Analysts International.

Key Products and Services

One hundred percent of Comp-u-Staff's 1988 revenue was derived from professional services.

Comp-u-Staff's professional services include:

- Management consulting
- Custom application and systems software development
- Training and documentation

Comp-u-Staff provides the following types of information management systems:

- Accounting and financial reporting
- Banking and insurance applications
- Manufacturing and distribution

Industry Markets

Comp-u-Staff targets its professional services to the Fortune 1000 companies, including firms in the banking, insurance, manufacturing, and retail industries.

Clients include Hershey Foods, SUN, National Liberty, Blue Cross of Washington and Alaska, USF&G Insurance, MNC Financial, Weyerhaeuser, Airborne Express, Northwest Airlines, Blue Cross/Blue Shield of Maryland, McCrory Stores, Mellon Bank, and USX.

Geographic Markets

One hundred percent of Comp-u-Staff's 1988 revenue was derived from the U.S.

Comp-u-Staff has 17 offices nationwide located in Atlanta (GA); Baltimore (MD); Central Pennsylvania; Cleveland (OH); Minneapolis (MN); Philadelphia and Pittsburgh (PA); Portland (OR); St. Louis (MO); Seattle (WA); Washington DC; Wilmington (DE); Dallas and Houston (TX); Detroit (MI); and Ft. Lauderdale and Tampa (FL).

Computer Hardware and Software

Comp-u-Staff has an HP 3000 installed for internal use.

COMPANY BRIEF

Cross Industry: Professional Services

Comp-u-Staff
One Investment Place
Towson, MD 21264
(301) 828-0788

CEO: Hank Post, Chairman
Kathy Cornell, President
Private Company
Founded: 1978

Employees: 325 (11/86)
Revenue (FYE 12/31/85): \$15 million*

The Company: Comp-u-Staff provides professional services to Fortune 1000 and mid-sized companies

Sources of Revenue:

- Professional Services (100%)

Key Products and Services:

- Professional Services
 - Comp-u-Staff provides systems consulting, custom application and systems software development, facilities management, and education and training.
 - The company provides all types of information management systems, including accounting and financial reporting, payroll, inventory, and distribution systems for the following equipments: HP-3000, DEC VAX, and Wang mini-computers, and IBM mainframes operating in CICS and IDMS environments

Target Industries:

- Fortune 1000 companies, including banking, insurance, manufacturing, and retail companies

Geographic Markets:

- U.S. and Non-U.S., including Saudi Arabia and Mexico
- Sales Offices: Six U.S. sales offices

*INPUT estimate



COMPANY PROFILE

COMPUTAB, INC.
702 South Beretania Street
3rd Floor
Honolulu, HI 96813
(808) 521-4734

Dennis W. Fitzgerald, Chairman of the
Board
Private Corporation
Total Employees: 190
Total Revenue, Fiscal Year End
12/31/88: \$8,365,000

The Company

COMPUTAB, Inc., incorporated in 1966, provides various processing and professional services in Hawaii and the San Francisco Bay Area. The company offers industry-specific processing to the banking and finance and insurance sectors, as well as cross-industry applications.

Total fiscal 1988 revenue reached \$8.4 million, a 5% increase over 1987 revenue of \$8 million. A three-year revenue summary follows:

COMPUTAB, INC.
THREE-YEAR REVENUE SUMMARY
(**\$ thousands**)

ITEM	FISCAL YEAR		
	1988	1987	1986
Revenue	\$8,365	\$7,972	\$7,703
• Percent increase (decrease) from previous year	5%	4%	2%

In February 1986, COMPUTAB acquired COMPUTECH, of Honolulu (HI). COMPUTECH, formerly known as Technology Pacific, provides third-party computer field engineering services in Hawaii.

As of January 1989, COMPUTAB had approximately 190 employees (157 in Honolulu, 18 in Maui, and 15 in the Bay Area), segmented as follows:

Marketing and sales	2
Customer support	160
Computer operations	22
General and administrative	<u>6</u>
	190

Key Products and Services

COMPUTAB offers the following processing services:

- Standard accounting
- On-line payroll, personnel, benefits, and claims processing
- On-line VISA, MasterCard, and private label accounting
- On-line title research data base
- On-line legislative bill tracking data base
- Clearinghouse cash item settlement
- Cash item capture
- Commercial banking
- Consumer finance
- Direct mail
- Insurance accounting
- Tourist reservations
- Bulk data transmission

COMPUTAB offers the following professional services:

- Systems analysis and design
- Programming
- Consulting
- Facilities management
- Data capture
- Data processing
- Time sharing (TSO, CICS, ROSCOE)
- Remote job entry
- Computer output microfilm
- Equipment sales
- Equipment maintenance

Industry Markets

COMPUTAB derives its revenue primarily from the banking and finance and insurance industries. Other processing and professional services revenue is derived from various industries.

Current clients include First Interstate Bank of Hawaii, Castle & Cooke, C. Brewer and Co., Pacific Insurance, Finance Factors, Grand Pacific Life Insurance, GECC Financial Corp., Hawaii Central Title Plant, Ameron HC&D, Maui Land & Pineapple, and VISA and MasterCard processing for three Hawaii banks.

Geographic Markets

One hundred percent of COMPUTAB's 1988 revenue was derived from the U.S.--more specifically, Hawaii and northern California.

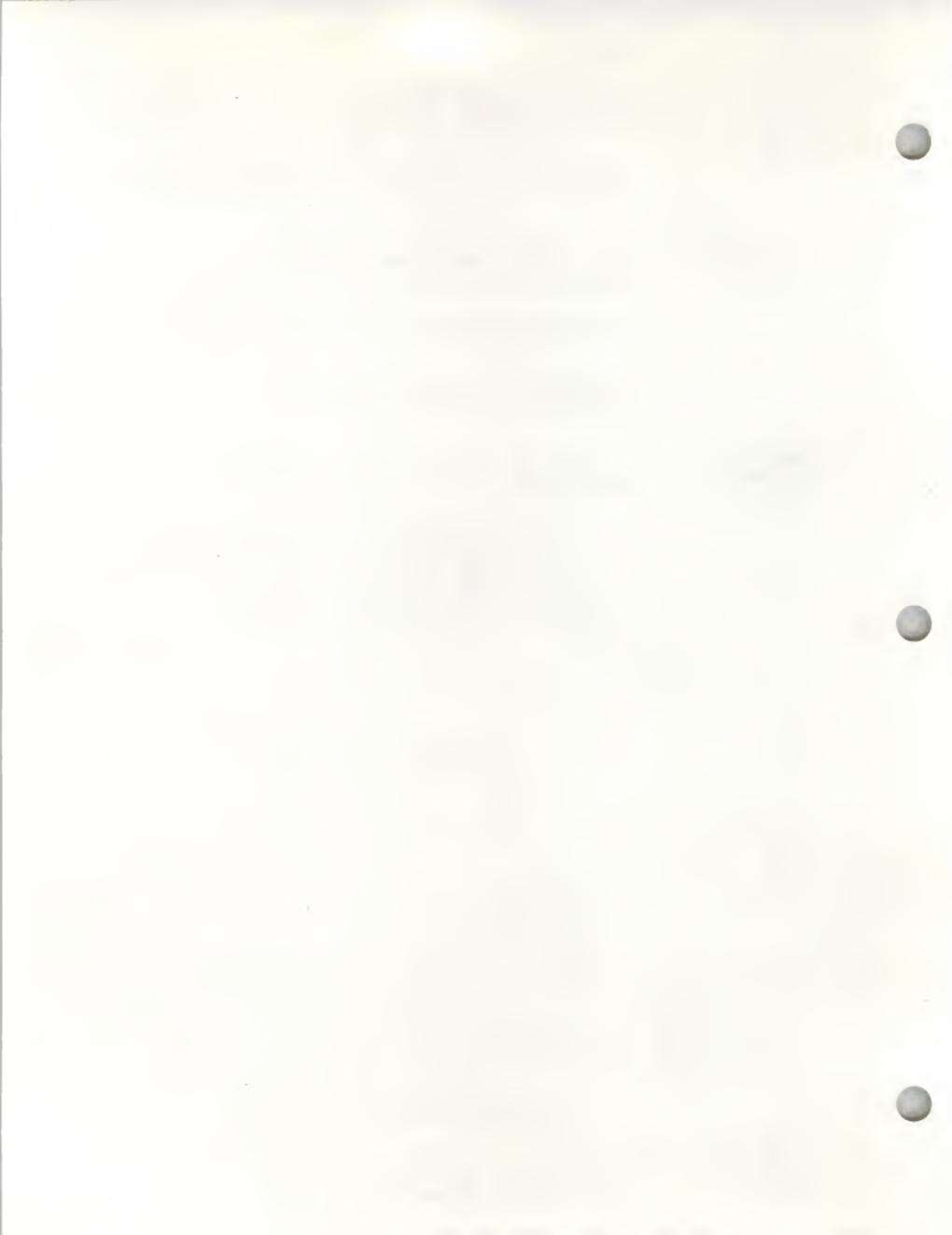
COMPUTAB has offices located in Honolulu and Kahului (HI), and Concord (CA).

COMPU TECH is located in Honolulu (HI).

Computer Hardware and Software

COMPUTAB has the following computers installed in support of its various services:

- Honolulu: IBM 3083 (B24 MVS/SP), IBM 4341, IBM 4331, and a Kodak COM LBR.
- Bay Area and Maui: IBM System/38s linked by microwave and satellite circuits with the Honolulu data center.



COMPANY BRIEF

Cross Industry: Accounting

COMPUTAB, Inc.
702 South Beretania Street
3rd Floor
Honolulu, HI 96813
(808) 521-4734

CEO: Charles M. Harting, President
Private Company
Founded: 1966

Employees: 180 (Honolulu - 155, San Francisco Bay Area - 15, Maui - 10)
Revenue (FYE 3/31/86): \$7,702,000

The Company: COMPUTAB, Inc. provides processing services and professional services in Hawaii and the San Francisco Bay Area

Sources of Revenue:

- Processing Services
- Professional Services

Key Services

- Processing Applications
 - Standard accounting
 - On-line payroll, personnel, benefits, and claims processing
 - On-line VISA, MasterCard, and private label accounting
 - On-line title research data base
 - On-line legislative bill tracking data base
 - Clearinghouse cash item settlement
 - Commercial banking
 - Consumer finance
 - Direct mail
 - Insurance accounting
 - Tourist reservations
 - Bulk data transmission
- Professional Services
 - Systems analysis and design
 - Programming
 - Consulting
 - Facilities management

December 1986

Target Industries:

- Cross industry
- Current clients include major banks, real estate and development firms, title companies, and retail and wholesale businesses

Geographic Markets:

- U.S. (100%)
- All revenue is derived from Hawaii and Northern California
- Sales Offices: Honolulu, Kahului (Maui), Walnut Creek (CA)

Other:

- COMPUTAB operated as the processing department of Peat, Marwick, Mitchell & Company in Honolulu from 1956 to 1966.
- COMPUTAB has the following computers installed in support of its various services:
 - Honolulu: IBM 3033 (U16 MVS/SP), 4341, and 4331, and a Kodak COM LBR
 - Bay Area and Maui: IBM System/38s linked by microwave and satellite circuits with the Honolulu data center

December 1986

COMPANY HIGHLIGHT

COMPUTEL SYSTEMS, LTD.

Place de Ville, Tower B
112 Kent Street
Ottawa, Ontario K1P 5P2
(613) 238-6061

Edward P. Cannon, President and
CEO
Public Corporation, Toronto Stock
Exchange
Total Employees: 709
Total Revenues, Fiscal Year End
12/31/78: \$23,034,406
Non-Captive Revenues: \$13,820,643

THE COMPANY

- Computel Systems Ltd. was incorporated under the laws of Canada in 1967. Since its inception, Computel has provided a range of computer services to clients in government, industry and education. Clients use Computel either to supplement their own computer services or to provide their total computer services.
- In 1973 Computel became associated with Royal Trusco, Limited which presently owns 96% of Computel's shares and contributes for 36% to Computel's revenues.
- The consolidated operations of Computel Systems Ltd. includes six separate operating subsidiaries: Computel, Data Logic Canada, Dominion Computer Support Services, Computel Systems Inc. (Florida), the new Computel Saudi Arabia operations, and a recently acquired company, SDI Associates Ltd.
- While total revenues for 1978 increased 45% from 1977 to 1978, net income for the same period decreased 41%. A five year financial summary follows:

COMPANY HIGHLIGHT/COMPUTEL SYSTEMS, LTD.

COMPUTEL SYSTEMS, LTD.
FIVE YEAR FINANCIAL SUMMARY
($\$$ Thousands, Except Per Share Data)

ITEM	FISCAL YEAR				
	1978	1977	1976	1975	1974
Revenues	\$23,034	\$15,904	\$11,731	\$12,790	\$ 8,799
. Percent increase from previous year	45%	36%	9%	45%	37%
Income (Loss) before income taxes and extraordinary item	\$ 1,072	\$ 1,521	\$ 413	(\$1,488)	(\$1,848)
. Percent increase from previous year	(30%)	268%	128%	19%	(48%)
Net income (Loss)	\$ 903	\$ 1,521	\$ 413	-	-
. Percent increase from previous year	(41%)	268%	-		
Net earnings (Loss) per share	\$.91	\$ 1.53	\$.42	(\$1.73)	(\$2.99)
. Percent increase from previous year	(41%)	263%	124%	42%	(47%)

- In March, 1978 final approval was given Computel by the Board of Governors of the U.S. Federal Reserve Board for the divestiture of Information Systems Designs, Inc. (ISD), the wholly-owned California subsidiary which provides remote computing services.
- Computel's management claims that the lower 1978 profits were attributable to: the exclusion in 1978 of profits from Information Systems Designs, Inc. and from costs associated with the expansion of the Florida subsidiary. Other contributing factors were:
 - The election of a progressive conservative Government in Canada which has significantly cut back spending. Since 75% of Computel's non-captive revenues stem from the Canadian Federal Government, the present leadership has had a negative impact on Computel's business.
 - Computel is attempting to expand its commercial business and that expansion has been slower than anticipated. Management does not expect to see an improvement in its commercial business until the first quarter of 1980.
- In August, 1979 Computel acquired SDI Associates Ltd. from London Life Insurance Company. SDI Associates specializes in product development, processing, and software products for financial institutions: commercial banks, trust, and mortgage companies. SDI had revenues of approximately \$7.5 million for 1978. Computel management intends to develop strength in providing processing and professional services for financial institutions, in addition to marketing SDI's software products.

COMPANY HIGHLIGHT/COMPUTEL SYSTEMS, LTD.

- The 492 employees at Computel Systems Ltd. are divided as follows:

- Marketing sales	93
- Software services/customer support	102
- Computer operations	225
- General and administrative	<u>72</u>
Total	492

KEY PRODUCTS AND SERVICES

- Approximately 80% of Computel's revenues stem from processing services, of which 48% is interactive and 32% is batch, provided to about 300 clients. The remaining 20% of revenues stem from professional services. Services are provided both from Computel's computer center in Ottawa and from Computel's subsidiary companies.
- Local and remote batch processing, conversational remote job entry and interactive processing are all available from the Ottawa computer center. Computel Systems offers a range of applications software as shown in Exhibit A.
 - There is a combination of computer hardware at the Computel computer center in Ottawa. IBM, Univac, and Hewlett-Packard equipment are available for clients' processing. All systems operate independently. At present, three of the four Hewlett-Packard mini-computers are dedicated for a facilities management contract which Computel has with the Canadian Federal Government Supply and Services Canada. The contract is worth approximately \$2 million over five years. The fourth Hewlett-Packard machine is available on a shared basis.
- SDI of Toronto, Computel's recent acquisition, derives 40% of its revenues from professional services, 40% from facilities management contracts, 10% from data entry services, and 10% from proprietary software products. SDI has 160 employees.
 - SDI's Consulting Services Division provides professional services to the financial community for the management and development of large projects, and markets four software packages:
 - SDI obtained exclusive marketing rights to PALM from its developer, Lycor of Indiana. PALM is used by small insurance companies (under 100,000 policies) to process individual life insurance. Five systems have been installed.
 - A mortgage processing system was also developed by SDI and three systems are currently installed.
 - SCOT, a documentation system, is for cross-industry use.
 - The Data Services Division of SDI has approximately 25 facilities management contracts.

EXHIBIT A

COMPUTEL SYSTEMS LTD.
APPLICATIONS AVAILABLE ON COMPUTEL NETWORK

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none"> • OPERATING ENVIRONMENT* <ul style="list-style-type: none"> - IBM 370/168 AND 3033, AMIGOS, AMS, ISAM, JES3, MVS, RACF, TLMS, VSAM, TSO, ROSCOE - UNIVAC 1100/81A, OS/1100, PCIOS, STAT, CTS, DEMAND, SSG - HEWLETT PACKARD HP3000, KSAM, MPE, SESSION MODE, VIEW/3000 • PROGRAMMING LANGUAGES SUPPORTED <ul style="list-style-type: none"> - ASSEMBLER (I, U) - COBOL (I, U, H) - FORTRAN (I, U, H) - PL/1 (I, U) - RPG (I, U, H) - WATFIV (I) - APL (U) - BASIC (U, H) - LISP (U) - MASM (U) - NUALGOL (U) - SNOBOL (U) - SPL (H) • FILE/DATA MANAGEMENT <ul style="list-style-type: none"> - CICS (I) - ADABAS (I) - SYSTEM 2000 (I, U) - IMAGE/3000 (H) - DATAMANAGER (I) - EASYTRIEVE (I) - ICEMAN/SORT (I) - MARK IV (I) - QUIK JOB III (I) - FURPUR (U) - SORT (U) - SORT/MERGE (H) - QUERY (H) • DATA BASES AVAILABLE <ul style="list-style-type: none"> - CITS (I, U) (CANADIAN INFORMATION TIME SERIES) 	<ul style="list-style-type: none"> • ACCOUNTING/FINANCIAL MANAGEMENT <ul style="list-style-type: none"> - ABC (I) (FINANCIAL PLANNING) • ECONOMETRICS <ul style="list-style-type: none"> - DATABANK (I, U) - MASSAGER (I, U) - MOSAIC (I, U) - MATOP (U) • ENGINEERING <ul style="list-style-type: none"> - ICES (U) • GRAPHICS/PLOTTING <ul style="list-style-type: none"> - SYMAP (U) - TEKTRONIX (U, H) - HP GRAPHICS (H) • PROJECT MANAGEMENT <ul style="list-style-type: none"> - CARMIS (I) - EMSCO (I) (CONSTRUCTION) - PROSE (I) (CONSTRUCTION) - OPTIMA 1100 (U) - PERT (U) - PERTCPM (H) • SIMULATION <ul style="list-style-type: none"> - GASP II, 1100 (U) - LP 1100 (U) - SIMSCRIPT (U) - SIMULA (U) • TEXT MANAGEMENT <ul style="list-style-type: none"> - FORMAT (I) - SCRIPT (I) - DOC (U) - ED (U) - EDITOR (H) • MATHEMATICS/STATISTICS <ul style="list-style-type: none"> - SAS (I) - SPSS (I) - TPL/PCL (I) - FMPS (U) - MATH/STAT-PACK (U) - IMSL (H) • OTHER <ul style="list-style-type: none"> - AUTOKAN (SHIPBUILDING)

* I = IBM EQUIPMENT

U = UNIVAC EQUIPMENT

H = HEWLETT PACKARD EQUIPMENT

COMPANY HIGHLIGHT/COMPUTEL SYSTEMS, LTD.

- SDI has a wholly owned subsidiary in the United Kingdom, Lonsdale Systems, which employs 25 people. In addition to professional consulting services on product development, Lonsdale has exclusive license to market PALM as well as three insurance systems developed by Insurance Systems of America: ISA/Accounting, Budget and Cost System; ISA/On-Line Alpha System; and V-4 (Casualty Insurance System). Lonsdale markets a reinsurance system, REASON, developed by Ananetics of New York.
- Computel Systems Inc. (CSI) located in Miami, Florida specializes in providing on-line banking and financial related processing services. With revenues of approximately \$2 million, Computel Systems Inc. employs 65 people.
 - From its data center in Miami, CSI provides interactive remote computing and batch services.
 - Specific applications are provided to 15 major banks including Capital Bank, First National Bank, and Royal Trust Bank, and three credit unions. The applications offered are: Demand Deposit Accounts, Time Deposit Accounts, Installment Loans, Commercial Loans, Mortgage Loans, and an Automated Teller Machine system.
 - In addition, Computel provides its clients with general ledger and financial management and mortgage administration systems. The two general ledger systems were developed by Florida Software and Management Science America.
 - The monthly expenditure for an average client ranges from \$2,000 to \$15,000 depending on the size of operation.
 - Computel management anticipates 1979 revenues will be in excess of \$2.5 million.
- Data Logic Canada provides project leadership, particularly in data base design and minicomputer applications, contract programming, consulting services, education courses, and through Dominion Computer Support Services, data entry services.
- In July 1978, Computel began a three year facilities management contract worth \$5.6 million per annum for the Ministry of Planning of the Kingdom of Saudi Arabia. Under this contract Computel operates an IBM 370/148 computer with a staff of approximately 38 located in Ryadh, Saudi Arabia. The contract requirements include the design and development of a number of specialized application packages which will provide the Ministry with measurement tools necessary to monitor the Kingdom's economic progress.

INDUSTRY MARKETS Seventy-five percent of Computel's non-captive revenues are derived from the Federal Government of Canada, 10% from banking and finance, and a small percentage from manufacturers.

COMPANY HIGHLIGHT/COMPUTEL SYSTEMS, LTD.

GEOGRAPHIC MARKETS Most of Computel's revenues (71%) stem from Canada. Of the remainder, 20% are from Saudi Arabia, one percent from England, and eight percent from Computel Systems Inc. in Florida.

COMPUTER HARDWARE AND SOFTWARE

- The Computel Systems Ltd. data center in Ottawa, Canada has the following equipment which is accessed via leased lines:
 - Two IBM System 370/168s operating under MVS/JES 3.
 - One IBM 3033 operating under MVS/JES 3.
 - One Univac 1100/81A operating under OS/1100.
 - Four Hewlett-Packard 3000s operating under MPE 3.
- In Miami, Florida, Computel Systems, Inc. operates:
 - Two Burroughs B4700 operating under MCP.
- The Computel Saudi Arabia facility operates:
 - One IBM System 370/148 operating under VSI.

Vendor Profile

A Publication from INPUT's Vendor Analysis Program - U.S.

January 1996

Computer Associates International, Inc.

Chairman & CEO: Charles B. Wang
President & COO: Sanjay Kumar
One Computer Associates Plaza
Islandia, NY 11788-7000
Phone: (516) 342-5224
Fax: (516) 342-5329



Status:	Public
Employees:	9,000 (12/95)
Revenue:	\$ 2,622,922,000
Fiscal Year End:	3/31/95

Key Points

- Computer Associates International (CA) is the world's leading independent software provider of systems management, database management, application development and business applications software products.
- CA completed its 50th acquisition with the purchase of LEGENT Corporation in July 1995, expanding the company's systems
- CA's fiscal 1995 financials reflected a continued increase in productivity—generating \$81,000 in profit per employee, compared to \$57,000 in fiscal 1994.
- In December 1995, CA announced its ICE (Internet Commerce Enabled) family of solutions that provide the infrastructure required for mission-critical Internet applications.
- During fiscal 1995, CA-Unicenter established itself as the industry standard

software offerings in the management of enterprise distributed systems.

for systems management across all platforms. Virtually every major hardware vendor and many software vendors have endorsed CA-Unicenter.

Company Description

Computer Associates International, Inc. (CA) was incorporated in 1974 and commenced operations in 1976. As a result of ongoing internal development and numerous acquisitions, the company currently markets and supports more than 500 systems and applications software products worldwide.

CA's product line includes systems and database management, application development, financial and manufacturing applications and consumer solutions for use on mainframe, midrange and desktop computers. The company serves business, government, scientific and educational organizations through direct operations in 36 countries.

Organization and Structure

In North America, CA's sales and support personnel are currently organized into the following groups:

- The North American Group is responsible for sales, marketing and service of products sold directly to the user.
- A separate National Accounts Group provides additional service to large clients, including users and facilities managers. The Federal Division markets and supports federal government clients.
- The Third-Party Sales Group is responsible for sales, marketing and service of CA's software products through third-party authorized vendors.

CA operates approximately 55 offices throughout the U.S. in addition to its headquarters in Islandia (NY).

Outside North America, CA operates through wholly owned subsidiaries located in 33 countries and operates 62 foreign office facilities outside the U.S. Principal offices are located in Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Holland, Hong Kong, Ireland, Israel, Italy, Korea, Malaysia, New Zealand, Norway, the Philippines, Portugal, Russia, Singapore, South Africa (with Dimension Data Holdings Ltd.), Spain, Sweden, Switzerland, Taiwan, Turkey and the U.K.

Company Strategy

CA's strategy is to provide its clients with corporate-wide software solutions through internal development, technology acquisition and extensive product integration. Its software solutions are designed to help clients evolve to client/server and distributed computing across desktop, midrange and mainframe computers.

This is accomplished through adherence to CA's unique software blueprint—CA90s®: Computing Architecture For The 90s. This layered architecture is the blueprint for the continuing development of all CA software, which enables clients to choose the hardware platform of their choice, or even a combination of hardware platforms, based upon their distributed or cooperative processing requirements. As a result, the company is able to provide enterprise-wide solutions.

Though CA's mainframe business currently accounts for approximately 68% of sales, CA's president Charles Wang has been quoted in the computer industry press describing CA's target revenue mix otherwise in the next five years. This revenue mix would be 25% mainframe product revenues, 25% personal computer, 25% UNIX and 25% other environments.

CA has outlined its strategy for the products it acquired in July 1995 with LEGENT Corporation. The company intends to continue development work on the products and to increase the level of support for most of them.

CA continues to follow an aggressive acquisition growth strategy to build its product offerings.

- CA is integrating the LEGENT technology into its flagship systems management solution, CA-Unicenter.
- CA also will unveil a next-generation enterprise management solution in 1996 known as CA-Unicenter/TNG (The Next Generation).

Financials

CA's fiscal 1995 revenue reached more than \$2.62 billion, a 22% increase over fiscal 1994 revenue of nearly \$2.15 billion. Net income rose 8%, from \$401.3 million in fiscal 1994 to \$431.9 million in fiscal 1995.

- Fiscal 1995 results include \$249.3 million in charges associated with write-offs for purchased research and development associated with the acquisition of The ASK Group, Inc.
- Excluding these charges, fiscal 1995 net income would be \$586.5 million, a 46% increase over fiscal 1994 and earnings per share would have risen 49% to \$3.49 (not adjusted for the August 1995 3-for-2 stock split).
- A five-year financial summary follows.

Computer Associates International, Inc. Five-Year Financial Summary (\$ Millions, except per share data)

Item	Fiscal Year				
	3/95	3/94	3/93	3/92	3/91
Revenue	\$2,623.0	\$2,148.5	\$1,841.0	\$1,508.8	\$1,348.2
• Percent change from previous year	22%	17%	22%	16%	4%
Income before taxes	\$696.6	\$627.0	\$383.7	\$267.0	\$213.5
• Percent change from previous year	(a) 11%	63%	44%	25%	11%
Net income	\$431.9	\$401.3	\$245.5	\$162.9	\$130.3
• Percent change from previous year	8%	63%	57%	25%	6%
Earnings per share (b)	\$2.57	\$2.34	\$1.44	\$0.92	\$0.70
• Percent change from previous year	10%	63%	57%	31%	6%

(a) Includes a write-off of purchased research and development technology of \$249.3 million.

(b) Not adjusted for the August 1995 3-for-2 stock split.

During fiscal 1995, product revenue increased by 31% to \$1.9 billion.

- The increase was attributed to greater revenue derived from licensing fees on the midrange platform as well as modest increases in product revenue from mainframe-based systems management products. The midrange platform increase was due chiefly to the success of the company's UNIX-based systems management product—CA-Unicenter—as well as integration of the ASK/Ingres products acquired in June 1994.
- The continued demand for Enterprise Licensing alternatives and less restrictive pricing options affording clients licensing flexibility also contributed to revenue growth.
- International revenues increased by 28% during fiscal 1995. This increase was positively affected by foreign exchange currency rates, relatively stable economic conditions, expanding markets and favorable product offerings.

Maintenance revenues in fiscal 1995 increased 4% to \$719.6 million, primarily due to the acquisition of ASK. Absolute maintenance revenue continued to be negatively impacted by site consolidations and the revenue mix shift toward lower maintenance-generating client/server solutions.

Revenue Analysis by Product/Service
INPUT estimates that more than 71% of CA's fiscal 1995 revenue was derived from software product licenses, 27% from associated maintenance services and the remainder from professional services.

Approximately 73% of fiscal 1995 revenue came from mainframe-based software and services, 20% from midrange systems and the remaining 7% from micro and other software.

Interim Results

Revenue for the nine months ending December 31, 1995 reached nearly \$2.4 billion, a 31% increase over \$1.82 billion for the same period in 1994.

- Net losses of \$321.5 million include pretax write-offs of \$1.3 billion for purchased research and development associated with the acquisition of LEGENT. This compares with net income of \$219 million for the same period a year ago, which includes write-offs of \$249.3 million for purchased research and development associated with the acquisition of The ASK Group.
- Excluding these charges, CA reported net income of \$486.6 million, up from \$373.6 million for the same period a year ago.

Market Financials

CA's products are used by clients in manufacturing, banking, insurance, education, government agencies, retail microcomputer distribution and value-added reselling, as well as by individual personal computer users.

Geographic Markets

Approximately 48% of CA's fiscal 1995 revenue was derived from the U.S. (including export sales) and 52% from international sources.

A three-year summary of geographic sources of revenue follows:

Computer Associates International, Inc.
Three-Year Source of Revenue Summary

(\$ Millions)

Geographic Market	Fiscal Year					
	3/95		3/94		3/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Revenue						
- U.S. (a)	\$1,262.8	48%	\$1,089.5	51%	\$846.3	46%
- International	1,360.2	52%	1,058.9	49%	994.7	54%
Total	\$2,623.0	100%	\$2,148.4	100%	\$1,841.0	100%
Net income						
- U.S.	\$276.7	64%	\$293.3	73%	\$170.7	70%
- International	\$155.2	36%	108.0	27%	74.8	30%
Total	\$431.9	100%	\$401.3	100%	\$245.5	100%

(a) Includes export sales to unaffiliated customers of approximately \$43.5 million, \$42.6 million and \$41.0 million in fiscal 1995, 1994, and 1993, respectively.

Acquisitions

Since its inception, CA has completed more than 50 acquisitions. Recent acquisitions include the following:

- In August 1995, CA acquired LEGENT Corporation of Herndon (VA) for approximately \$1.8 billion. The acquisition was accounted for as a purchase.
- LEGENT was a supplier of more than 150 systems software products and services for the management of distributed computing across the enterprise. The company had more than 75,000 products installed at more than 12,000 customer sites worldwide.
- LEGENT's key products include the ENDEVOR suite of software management and administration products, PARAMOUNT resource management tools and Prevail automation technologies.

- LEGENT had approximately 2,700 employees at the time of the acquisition and revenue of \$500 million for the fiscal year ending September 30, 1994.

- The operations of LEGENT are being merged into CA. CA has merged LEGENT's AgentWorks and Prevail/XP-Paradigm products into CA-Unicenter.
- In October 1994, CA acquired the remaining 50% interest in Newtrend, an Orlando, Florida-based banking software and services company. CA has held a 50% equity interest in Newtrend since 1991.
- Newtrend, with 1993 revenue of \$84 million and approximately 575 employees, provides a range of outsourcing, professional services and applications software products to retail and commercial banks, savings and community banks and credit unions.

- CA will retain Newtrend's INFOPOINT IBM mainframe-based family of banking applications software and some 125 Newtrend employees.
- CA has sold off Newtrend's outsourcing and services business and MISER2 and CUBE thrift and credit union software packages to Electronic Data Systems (EDS).
- CA plans to reconfigure INFOPOINT for client/server computing platforms, such as Windows and UNIX.
- In June 1994, CA acquired The ASK Group, Inc. of Santa Clara (CA) for \$13.25 per share, or approximately \$310 million.
 - ASK provided relational database and connectivity products, application development tools and manufacturing software products. Key offerings include the Ingres relational database product line, the ASK OpenROAD application development environment and the MANMAN, MANMAN/X, MAXCIM and SIM/400 manufacturing applications.
 - ASK had revenues of \$426 million for the fiscal year ending June 30, 1993 and approximately 2,100 employees in 80 offices worldwide.
 - EDS and Hewlett-Packard, the two largest shareholders of ASK representing an aggregate of 27% of the outstanding shares, also tendered their shares to CA.

Employees

As of March 31, 1995, CA had more than 7,550 employees.

- Approximately 1,400 employees were located at CA facilities in Islandia (NY),

3,400 at other offices in the U.S. and 2,750 at offices in foreign countries.

- Of the total employees, approximately 2,750 were engaged in product development efforts and 3,700 were engaged in sales and sales support functions.
- Revenue per employee was approximately \$363,000 in fiscal 1995, compared to \$303,000 in fiscal 1994, \$252,000 in fiscal 1993 and \$212,000 in fiscal 1992.

As a result of the LEGENT acquisition and internal growth, CA currently has approximately 9,000 employees worldwide.

Key Products and Services

CA offers more than 500 system and applications software products for a range of mainframe, midrange and desktop computers from many different hardware manufacturers, including IBM, Hewlett-Packard, Amdahl, Data General, DEC, Sun, Tandem, Compaq and Apple, among others. The company also provides software maintenance and professional services.

CA's software products are organized into the following categories:

- *Enterprise Systems Management Software*
- *Enterprise Information Management Software*
- *Enterprise Business Applications Software*

Key product introductions in 1995 include:

- CA-OpenIngres/ICE, a database management solution that provides Web-enabled access to corporate data on UNIX and Windows NT

- CA-Unicenter/ICE, a solution for securing and managing electronic commerce that provides security, event management, help desk, storage management, resource accounting and database monitoring for Web sites
- Integration of LEGENT's AgentWorks single sign-on and system/database alert management technologies into CA-Unicenter
- CA-Masterpiece/2000 with CA-OpenIngres for IBM AIX environments, combining distributed data architecture with financial management
- CA-SuperProject 4.0 for Windows, project management software for Windows
- CA-Unicenter for the ALPHA family of systems under Digital UNIX, Windows NT and NetWare
- CA-Unicenter/TNG (The Next Generation) allows organizations to define their business policies, map these policies to particular resource management requirements, then monitor resources for their support of specific business processes. The business process views can be customized to deliver information based on specific roles, locations, resources or other dimensions of control. CA-Unicenter TNG also uses a state-of-the-art GUI based on virtual reality technology.
- CA-OpenROAD for UNIX and CA-OpenROAD for Windows NT
- CA-Visual Objects, an object-oriented, Xbase development tool for creating Windows applications
- CA-KBM, an AS/400-based integrated manufacturing system

A summary of CA's product offerings follows.

Enterprise Systems Management Software

Systems Management Software supports automated data center operations.

Products are available for a range of operating environments, including OS/2, UNIX, AIX, HP/UX, DG/UX, Solaris, NewWare, OS/400, Windows NT, Tandem, AS/400, MVS/VSE/VM, VAX VMS and DOS and compatible operating environments. These products are organized into functional areas and support total data center automation. Functional areas supported address the following:

- Distributed Client/Server Solutions for UNIX and Windows NT environments, with CA-Unicenter as the flagship product
- Automated Production Control, including products such as CA-7, CA-11, CA-DISPATCH, CA-SCHEDULER and CA-OPERA
- Security, Control and Audit, including products such as CA-Unicenter/SSO, CA-ACF2, CA-TOP SECRET, CA-EXAMINE and CA-TELEVIEW
- Automated Storage Management, including CA-OSM, CA-I, CA-DYNAM, CA-ASM2, CA-CICSSORT, CA-ARCHIVER and CA-SORT
- Software Delivery, such as CA-Distribulink for UNIX and MVS
- Data Center Administration, including products such as CA-NETMAN
- Performance Management and Accounting, including CA-JARS, CA-PMA/ChargeBack, CA-MAZDAMON, CA-Prevail and CA-PARAMOUNT

- Conversion, including products such as CA-CONVERTOR, CA-DUO and CA-TRANSIT
- Help Desk Tools, such as CA-Paradigm (or CA-Unicenter/Adv. Help Desk)

Enterprise Information Management Software

These products improve productivity by integrating relational databases, repository services, integrated CASE tools and application generators. Products are available for MVS/VSE/VM, VSE/ESA, VAX VMS, BS2000, MSP, VOS3, OS/2, UNIX, Windows and DOS IBM PC and compatible operating environments.

Database management solutions include the following:

- CA-OpenIngres Solutions, including the CA-OpenIngres product line
- CA-DATACOM Solutions, including the CA-DATACOM product line, CA-DATAQUERY and CA-IDEAL products
- CA-IDMS Solutions, including the CA-IDMS and CA-ADS product lines, CA-CULPRIT, CA-EDP-AUDITOR and CA-OLQ
- CA-DB Solutions, including the CA-DB product line
- CA-OpenROAD (Open Rapid Object Application Development)
- End-User Query Tools, including the CA-Visual Express product line

Information management and application development products include the following:

- CASE Technologies, including the CA-TELON product line

- COBOL and Testing Tools, including products such as CA-InterTest, CA-EZTEST, CA-OPTIMIZER, CA-DATAMACS, CA-MetaCOBOL+, the CA-Realia product line and CA-Visual Realia
- DB2 Tools, including products such as CA-ProAudit, CA-ProBuild, CA-ProEdit, CA-ProOptimize and CA-ProSecure
- Enterprise Information Solutions, including the CA-EASYTRIEVE, CA-eMail, CA-PANAUDIT and CA-RAMIS product lines, CA-ROSCOE, CA-GENEROL, CA-EARL, CA-UFO and CA-VOLLIE
- Application Development, including products such as CA-REALIZER, CA-Visual Objects and the CA-Clipper product line
- Life Cycle Management, including products such as the CA-ENDEAVOR, CA-PANVALET and CA-PANAPT product lines, CA-LIBRARIAN, CA-ESTIMACS, CA-FPXpert, CA-METRICS, CA-PFF and CA-VMLIB

Enterprise Business Applications Software
Business Applications Software addresses both vertical and horizontal markets.

Products are available for MVS, VSE, VSAM OS/MVS, VAX/VMS, 1100 OS, OS/400, OS/2, UNIX, ULTRIX, HP-UX, AIX, SVR4DG-UX, SCO/UNIX, DOS, Windows, Macintosh, Sun and Prime operating environments in the following areas:

- Financial Management, including products such as ACCPAC Plus Accounting, CA-BPI Accounting II, CA-Simply Accounting and the CA-MASTERPIECE product line

- Manufacturing Management, including the CA-CAS, CA-CAS/UNIX, CA-PRMS, CA-MANMAN and CA-MANMAN/X product lines, CA-MAXCIM and CA-KBM (formerly SIM/400)
- Human Resource Management, including products such as CA-HRISMA, the CA-Classic/Open and CA-HRS product lines and CA-SAA
- Warehouse Management, including the CA-Warehouse BOSS product
- Business Decision and Support Tools, including the CA-20/20 and CA-CONSOL product lines, CA-Fusion and CA-SuperCalc
- Visual Information, including the CA-Cricket product line, CA-DISSLPA, CA-TELLAGRAF, CA-PLOT OPTIMIZER and CA-Graphics CONNECTION

LEGENT Software

LEGENT's products fall into three broad categories:

- Distributed systems management, including multiplatform agent-based management tools, client/server help desk and problem management, distributed storage management, cross-platform connectivity technology, performance and capacity planning, and operations management. Product lines include CA-AgentWorks, CA-ParadigmXP, CA-Reliance/XP, CA-Prevail/XP and CA-PARAMOUNT/XP.
- Distributed data management, including multiplatform software distribution, data transfer and warehouse-enabling technology. Products include CA-DistribuLink, CA-XCOM and CA-MLINK.

- Application management, including multiplatform version control, change management and application configuration. Product lines include CA-ENDEVOR.

Software Pricing

CA's Enterprise License Plan, pioneered in 1992, simplifies software pricing, administration and accounting. Instead of multiple agreements for various CPUs, sites, products and corporate organizations, the client signs one comprehensive contract for the entire enterprise and a single flat fee replaces everything else.

Professional Services

Professional services provided by CA include custom software development, consulting and education and training.

Clients

CA services and supports more than 10,000 clients worldwide. CA clients include:

- 93 of the world's largest 100 companies
- More than 90% of the Fortune 500
- 38 of the top 43 motor vehicles and parts manufacturers, including Toyota, General Motors, Ford, Nissan, Daimler-Benz, Honda, Volvo, BMW, Rolls-Royce, Mitsubishi, Roert Bosch, Isuzu, Mazda, Suzuki, Kia and Yamaha
- 32 of the top 50 U.S. banks, including Citibank, Chemical, NationsBank, Chase Manhattan, Banc One and Shawmut
- 18 of the top computer companies worldwide, including IBM, Toshiba, Hewlett-Packard, Digital, Compaq, Intel, Apple and Sun Microsystems

- 43 of the top 44 electronics companies worldwide
- 28 of the top 35 U.S. food companies
- 14 of the top 18 beverage companies worldwide
- 27 of the top 30 U.S. specialist retailers
- 14 of the top 21 U.S. health care companies

Information services vendors that have licensed CA software to support their clients include Computer Sciences Corporation, IBM ISSC (with Kodak), Software Maintenance Specialists, SG2 (Paris), ALLTEL Information Services and Printrak International.

Other clients include Zions Bancorporation, Harden Industries, The Ministry of Communications of China, China National Petroleum Corporation, China Radio International, Land Registry of the Netherlands, Litton Computer Services, the U.S. Army, the Social Security Administration, the IRS, the Customs Bureau, the U.S. Geological Survey, the Bureau of Engraving and Printing, the Department of Defense and the Postal Service.

CA-Unicenter clients include the Equitable Life Assurance Society, Baxter International, King County Medical Blue Shield, Capital Cities/ABC, Libbey-Owens-Ford, Purdue University, Delta Dental Plan, MCI, Rohm and Haas, City of Albuquerque, the Bureau of National Affairs, Brake Parts, Rheem Manufacturing Co. and the State of Oregon (Department of Transportation).

Marketing and Sales Alliances

CA distributes, markets and supports its products on a worldwide basis with its own employees and a network of independent value-added resellers, distributors and dealers. CA has approximately 3,700 sales and support personnel promoting and licensing CA's products to clients.

In August 1995, CA introduced the CA VARsity Club program. Resellers, consultants and independent software vendors who qualify for the program are authorized to sell the entire suite of CA client/server software and receive extended support and sales incentives, including matching marketing funds, cash rebates and deep discounts for volume purchases.

Recent alliances include the following:

- In December 1995, CA announced a wide-ranging agreement with Netscape Communications Corporation. CA and Netscape will integrate CA-Unicenter/ICE with Netscape's core server products—Netscape Commerce Server, Netscape Communications Server, Netscape News Server and Netscape Proxy Server—to offer capabilities for conducting business over the Internet and other TCP/IP-based networks.
- In December 1995, CA and Microsoft announced that they would Internet-enable their co-branded integrated product (CA-Unicenter/ICE with Microsoft Windows NT Server and Microsoft Internet Information Server), which manages Windows NT servers.
- In November 1995, CA and Dataware Technologies announced a joint marketing agreement to cross-license CA-OpenIngres and Total Recall for

BRS/Search, permitting quick searches of and access to all types of corporate information.

- In November 1995, CA announced a global development and marketing agreement with Mosaix Technologies Limited (MXL) to deliver a complete spatial development environment by enabling MXL's spatial client application development tool, Mosaix, to work seamlessly with CA-OpenIngres.
- In September 1995, CA announced it will market new storage management options to CA-Unicenter based on Cheyenne Software's high-performance, image-based backup and RAID-5 fault tolerance technology.
- In August 1995, CA and Sun Microsystems announced they will jointly market and support a co-branded product, to be manufactured by CA, that will include CA-Unicenter, CA-OpenIngres and Solstice SunNet Manager.
- In June 1995, CA and Microsoft announced that CA will deliver its business applications software products on Windows NT and that Microsoft will create an integrated product that includes CA-Unicenter, Microsoft Windows NT and Microsoft SQL Server runtime. This co-branded integrated product will be marketed by CA worldwide through its direct sales force and reseller partners.
- In June 1995, CA and Fujitsu announced an alliance to jointly develop, market and support object technology. New products from the partnership will be delivered as extensions to the CA-OpenIngres product line. The first product—CA-OpenIngres/ODBMS—includes Fujitsu's ODB-II object database technology.

- In March 1995, CA announced that BMC Software will integrate its applications management solution—PATROL—with CA-Unicenter.
- In March 1995, CA purchased source code rights to Gupta's SQLBase database for the next five years.
- In March 1995, CA and Hewlett-Packard announced CA-Unicenter for OpenView, an open, scaleable management solution supporting network and systems management requirements that will be jointly marketed and supported for customers worldwide.

CA also has various alliances/VAR agreements related to certain of its products with Data General, AT&T GIS, IBM, Hewlett-Packard, Adage Systems, NEC, Sun Microsystems, Microsoft, SGI, NeTPower, Siemens, Bull, Olivetti, Symbol, Intel, Pyramid, Sequent, Unisys, Apple, Lotus, Candle Corporation, Compaq, Novell, ICL, DEC, Stratus, Premenos, and Santa Cruz Operation.

More than 400 VARs are enrolled in CA's CA-Ingres Dollar Program whereby CA shares license fees with CA-OpenIngres VARs in order to reward existing third-party vendors and to expand the CA-Open Ingres VAR community.

Competitors

Competitors include hardware companies supplying systems software, such as DEC, Hewlett-Packard and IBM.

In the systems management area, competitors include Candle, Boole & Babbage and BMC Software.

In the database management system area, major competitors include Oracle, Sybase and Informix.

In the application development area, competitors include IBM, DEC, Andersen Consulting and Novell, among others.

In the area of applications software products, competitors include Dun & Bradstreet Software, PeopleSoft and SAP America.

INPUT Assessment

CA's strengths include:

- The CA90s architecture, which allows CA to bring its applications quickly and efficiently to new platforms as they develop
- An extensive product line and availability of products for a range of platforms

- Software and client support

Challenges for the coming year include:

- Keeping CA from becoming bureaucratic so that it can respond quickly to individual clients and to the market as a whole
- Integrating new technologies (especially in client/server) and LEGENT products into CA's product lines

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

December 1994

Computer Associates International, Inc.

Chairman & CEO: Charles B. Wang
One Computer Associates Plaza
Islandia, NY 11788-7000
Phone: (516) 342-5224
Fax: (516) 342-5329

Status:	Public
Employees:	8,000 (12/94)
Revenue:	\$ 2,148,470,000
Fiscal Year End:	3/31/94

Key Points

- Computer Associates International (CA) is the world's leading independent software provider of systems management, database management, application development and business applications software products.
- The company is the world's leading multiplatform vendor. Although CA started out as a mainframe software company, the company

currently derives more than 25% of its revenues from midrange and desktop software.

- CA's fiscal 1994 financials reflected a significant increase in productivity—generating \$57,000 in profit per employee, compared to \$34,000 in fiscal 1993.
- In January 1994, Sanjay Kuman was appointed President and COO of the company.
- CA completed its 48th acquisition in June 1994 with the purchase of The ASK Group. The acquisition, which includes Ask's MANMAN manufacturing applications product line and INGRES relational database management technology, will help CA expand into the

client/server segment of the relational database market.

- Sales of CA-UNICENTER, the company's flagship systems management product, surpassing \$100 million for the first six months of calendar 1994. Client/server versions for a range of platforms have been released during the year. To open its market to small-to-medium sized organizations, CA has announced new pricing options for CA-UNICENTER, with pricing specifically designed for smaller installations.
- CA has also announced a significant restructuring of CA-INGRES pricing that cuts license prices, increases levels of standard support 400% and lowers support costs. CA has also committed heavy investments in development, service and marketing for the CA-OpenINGRES relational database product line.

Company Description

Computer Associates International, Inc. (CA) was incorporated in 1974 and commenced operations in 1976. As a result of ongoing internal development and numerous acquisitions, the company currently markets and supports more than 300 systems and application software products worldwide.

CA's product line includes systems and database management, application development, financial and manufacturing applications and consumer solutions for use on mainframe, midrange and desktop computers. The company serves business, government, scientific and educational organizations through direct operations in 30 countries.

Organization and Structure

In North America, CA's sales and support personnel are currently organized into the following groups:

- The North American Group is responsible for sales, marketing and service of products sold directly to the user.
- A separate National Accounts Group provides additional service to large clients, including users and facilities managers. The Federal Division markets and supports federal government clients.
- The Third Party Sales Group is responsible for sales, marketing and service of CA's software products through third party authorized vendors.

CA operates approximately 55 offices throughout the U.S. in addition to its headquarters in Islandia (NY).

Outside North America, CA operates through wholly owned subsidiaries located in 30 countries and operates 62 foreign office facilities outside the U.S. Principal offices are located in Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Holland, Hong Kong, Ireland, Israel, Italy, Korea, Malaysia, New Zealand, Norway, the Philippines, Portugal, Russia, Singapore, Spain, Sweden, Switzerland, Taiwan, Turkey and the U.K.

Company Strategy

CA's strategy is to provide its clients with corporate wide software solutions through internal development, technology acquisition and extensive product integration. Its software solutions are designed to help clients evolve to

client/server and distributed computing across desktop, midrange and mainframe computers.

This is accomplished through adherence to CA's unique software blueprint—CA90s®: Computing Architecture For The 90s. This layered architecture is the blueprint for the continuing development of all CA software, which enables clients to choose the hardware platform of their choice, or even a combination of hardware platforms, based upon their distributed or cooperative processing requirements. As a result the company is able to provide enterprise-wide solutions.

Though CA's mainframe business currently accounts for approximately 75% of sales, CA's president Charles Wang has been quoted in the computer industry press describing CA's target revenue mix in the next five years. This revenue mix would be 25% mainframe product revenues, 25% personal computer, 25% UNIX and 25% other environments.

CA has outlined its strategy for the products it acquired in June 1994 with The ASK Group. The company intends to continue development work on the products and to increase the level of support for most.

- New releases of CA-OpenROAD object-oriented, repository-driven application development software will be available in 1994.
- Upgrades for the CA-OpenINGRES database server are expected during the first six months of 1995. CA-OpenINGRES release 1.1 is being tested at more than 100 beta sites.
- The CA-MANMAN/X and CA-KBM manufacturing packages are currently being updated and at intervals throughout 1995.

- CA will create an integrated repository for CA-OpenROAD and Windows4GL (both from ASK), with CA's CA-Visual Realia and CA-Visual Objects development program. Its visual development strategy will include support for OLE custom controls.

CA continues to follow an aggressive acquisition growth strategy to build its product offerings.

Financials

CA's fiscal 1994 revenue reached nearly \$2.15 billion, a 17% increase over fiscal 1993 revenue of \$1.84 billion. Net income rose 63%, from \$245.5 million in fiscal 1993 to \$401.3 million in fiscal 1994.

A five-year financial summary is shown on the following page.

During fiscal 1994, product revenue increased by 24% to \$1.45 billion.

- The increase was primarily attributed to higher licensing fees on the mainframe and midrange platforms and market acceptance of CA's leading UNIX-based product, CA-UNICENTER, which currently operates on several different platforms.
- Enterprise Licensing alternatives and less restrictive pricing options affording clients licensing flexibility also contributed to revenue growth, particularly for mainframe systems products.
- International revenues increased by 6% during fiscal 1994. This increase, less than the 29% achieved by domestic operations, was adversely affected by foreign currency exchange rates and local economic conditions during 1994, as well as the later introduction of CA's UNIX-based offerings.

Maintenance revenues in fiscal 1994 increased 3% to \$692.8 million. These revenues continue to be negatively impacted by site consolidations

which offset most of the incremental maintenance attributed to new licensing arrangements.

Computer Associates International, Inc.
Five-Year Financial Summary
(\$ Millions, except per share data)

Item	Fiscal Year				
	3/94	3/93	3/92	3/91	3/90
Revenue	\$2,148.5	\$1,841.0	\$1,508.8	\$1,348.2	\$1,296.0
• Percent change from previous year	17%	22%	16%	4%	5%
Income before taxes	\$627.0	\$383.7	\$267.0	\$213.5	N/A
• Percent change from previous year	63%	44%	25%	11%	N/A
Net income	\$401.3	\$245.5	\$162.9	\$130.3	\$123.2
• Percent change from previous year	63%	57%	25%	6%	N/A
Earnings per share	\$2.34	\$1.44	\$0.92	\$0.70	\$0.66
• Percent change from previous year	63%	57%	31%	6%	N/A

Revenue Analysis by Product/Service

INPUT estimates more than 67% of CA's fiscal 1994 revenue was derived from software product licenses, 32% from associated maintenance services and the remainder from professional services.

Interim Results

Revenue for the six months ending September 30, 1994 reached nearly \$1.1 billion, a 17% increase over \$940.4 million for the same period in 1993. Net income of \$44.8 million includes a write-off of \$249.3 million for purchased research and development associated with the acquisition of The ASK Group.

- Income before the write-offs reached \$199.4 million, a 69% increase over the prior year's first half.

- All product offerings, particularly CA's midrange client/server products, performed well in the second quarter. Midrange environment products experienced growth of 177% due to continued strong acceptance of CA's midrange systems management offering—CA-UNICENTER for UNIX.

Market Financials

CA's products are used by clients in manufacturing, banking, insurance, education, government agencies, as well as individual personal computer users.

In the area of database management systems, graphics and applications software for the micro, mini and mainframe, the customer base ranges from home users to Fortune 500 companies.

Geographic Markets

Approximately 51% of CA's fiscal 1994 revenue was derived from the U.S. (including export sales) and 49% from international sources

A three-year summary of geographic sources of revenue follows:

**Computer Associates International, Inc.
Three-Year Source of Revenue Summary
(\$ Millions)**

Geographic Market	Fiscal Year					
	3/94		3/93		3/92	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Revenue						
- U.S. (a)	\$1,089.5	51%	\$846.3	46%	\$660.6	91%
- International	1,058.9	49%	994.7	54%	848.1	9%
Total	\$2,147.4	100%	\$1,841.0	100%	\$1,508.7	100%
Net income						
- U.S.	\$293.3	73%	\$170.7	70%	\$103.6	64%
- International	108.0	27%	74.8	30%	59.3	36%
Total	\$401.3	100%	\$245.5	100%	\$162.9	100%

(a) Includes export sales to unaffiliated customers of approximately \$42.6 million, \$41.0 million and \$30.2 million in fiscal 1994, 1993 and 1992, respectively.

Acquisitions

Since its inception, CA has completed more than 48 acquisitions. Recent acquisitions include the following:

- In October 1994, CA acquired the remaining 50% interest in Newtrend, an Orlando, Florida-based banking software and services company. CA has held a 50% equity interest in Newtrend since 1991.
- Newtrend, with 1993 revenue of \$84 million and approximately 575 employees, provides a range of outsourcing, professional services and applications software products to retail and commercial banks, savings and community banks and credit unions.
- CA will retain Newtrend's INFOPOINT IBM mainframe-based family of banking applications software and some 125 Newtrend employees.
- CA has sold off Newtrend's outsourcing and services business and MISER2 and CUBE thrift and credit union software packages to Electronic Data Systems (EDS).
- CA plans to reconfigure INFOPOINT for client/server computing platforms, such as Windows and UNIX.
- In June 1994, CA acquired The ASK Group, Inc. of Santa Clara (CA) for \$13.25 per share, or approximately \$310 million.

- ASK provides relational database and connectivity products, application development tools and manufacturing software products. Key offerings include the INGRES relational database product line, the ASK OpenROAD application development environment and the MANMAN, MAXCIM and SIM/400 manufacturing applications.
- ASK had revenues of \$426 million for the fiscal year ending June 30, 1993 and approximately 2,100 employees in 80 offices worldwide.
- EDS and Hewlett-Packard, the two largest shareholders of ASK representing an aggregate of 27% of the outstanding shares, have also tendered their shares to CA.

Employees

As of March 31, 1994, CA had more than 6,900 employees.

- Approximately 1,300 employees were located at CA facilities in Islandia (NY), 3,150 at other offices in the U.S. and 2,450 at offices in foreign countries.
- Of the total employees, approximately 1,800 were engaged in product development efforts and 3,400 were engaged in sales and sales support functions.
- Revenue per employee were approximately \$303,000 in fiscal 1994, compared to \$252,000 in fiscal 1993 and \$212,000 in fiscal 1992.

As a result of the ASK acquisition and internal growth, CA currently has approximately 8,000 employees worldwide.

Key Products and Services

CA offers more than 300 system and applications software products for a range of mainframe, midrange and desktop computers from many different hardware manufacturers, including IBM, Hewlett-Packard, Amdahl, Data General, DEC, Sun, Tandem, Compaq and Apple, among others. The company also provides software maintenance and professional services.

CA's software products are organized into the following categories:

- *Distributed Systems Management Software*
- *Application Development and Database Management Software*
- *Business Applications Software*

Key product introduction in 1994 include:

- CA-OpenINGRES (acquired with ASK)
- CA-UNICENTER systems management products under UNIX for Sun, Sequent, Data General, DEC Alpha AXP, IBM RS/6000 and IBM OS/2 client/server environments
- CA-UNICENTER/Star, the first cross-platform systems management workstation for client/server environments
- CA-UNICENTER OS/2 LAN servers
- CA-CAS/UNIX and CA-CAS/UNIX AD client/server manufacturing solutions ported to UNIX
- CA-OpenRoad, object-oriented, repository driven application development tool (acquired with ASK)

- CA-DATACOM and CA-IDMS client/server databases ported to UNIX
- CA-MANMAN, CA-MANMAN/X, CA-MAXCIM and CA-KBM manufacturing applications (acquired with ASK)
- CA-Simply Accounting, a DOS-based, entry-level accounting software line
- CA-Simply Tax, A DOS-based interactive tax preparation product

A summary of CA's product offerings follows.

Distributed Systems Management Software

Systems Management Software supports automated data center operations. Products are available for a range of operating environments, including OS/2, UNIX, NewWare, OS/400, NT, Guardian, AS/400, MVS/VSE/VM, VAX VMS and DOS and compatible operating environments. These products are organized into functional areas and support total data center automation.

Functional areas supported address the following:

- Distributed Client/Server Solutions, with CA-UNICENTER as the flagship product
- Automated Production Control, including products such as CA-7, CA-11, CA-DISPATCH, CA-SCHEDULER and CA-OPERA
- Security, Control and Audit, including products such as CA-ACF2, CA-TOP SECRET, CA-EXAMINE and CA-TELEVIEW.
- Automated Storage Management, including products such as CA-I, CA-DYNAM, CA-

ASM2, CA-CICSPORT, CA-ARCHIVER and CA-SORT

- Data Center Administration, including products such as CA-NETMAN
- Performance Management and Accounting, including products such as CA-JARS, CA-PMA/ChargeBack and CA-MAZDAMON.
- Conversion, including products such as CA-CONVERTOR, CA-DUO and CA-TRANSIT.

Application Development and Database Management Software

These products improve productivity by integrating relational data bases, repository services, integrated CASE tools and application generators. Products are available for MVS/VSE/VM, VSE/ESA, VAX VMS, BS2000, MSP, VOS3, OS/2, UNIX, Windows and DOS IBM PC and compatible operating environments.

Database management solutions include the following:

- CA-DATACOM Solutions, including the CA-DATACOM product line, CA-DATAQUERY and CA-IDEAL products.
- CA-IDMS Solutions, including the CA-IDMS and CA-ADS product lines, CA-CULPRIT, CA-EDP-AUDITOR and CA-OLQ.
- CA-OpenINGRES Solutions, including the CA-OpenINGRES product line
- CA-DB Solutions, including the CA-DB product line

- CA-OpenROAD (Open Rapid Object Application Development)
- End-User Query Tools, including the CA-Visual Express product line.

Information management and application development products include the following:

- CASE Technologies, including the CA-TELON product line.
- COBOL and Testing Tools, including products such as CA-InterTest, CA-EZTEST, CA-OPTIMIZER, CA-DATAMACS, CA-MetaCOBOL+, the CA-Realia product line and CA-Visual Realia.
- DB2 Tools, including products such as CA-ProAudit, CA-ProBuild, CA-ProEdit, CA-ProOptimize and CA-ProSecure.
- Enterprise Information Solutions, including the CA-EASYTRIEVE, CA-eMail, CA-PANAUDIT and CA-RAMIS product lines, CA-ROSCOE, CA-GENER/OL, CA-EARL, CA-UFO and CA-VOLLIE.
- Application Development, including products such as CA-REALIZER, CA-Visual Objects and the CA-Clipper product line.
- Life Cycle Management, including products such as the CA-PANVALET and CA-PANAPT product lines, CA-LIBRARIAN, CA-ESTIMACS, CA-FPXpert, CA-METRICS, CA-PFF and CA-VMLIB

Business Applications Software

Business Applications Software addresses both vertical and horizontal markets.

Products are available for MVS, VSE, VSAM OS/MVS, VAX/VMS, 1100 OS, OS/400, OS/2, UNIX, ULTRIX, HP-UX, AIX, SVR4DG-UX, SCO/UNIX, DOS, Windows, Macintosh, Sun and Prime operating environments in the following areas:

- Financial Management, including products such as ACCPAC Plus Accounting, CA-BPI Accounting II, CA-Simply Accounting and the CA-MASTERPIECE product line.
- Manufacturing Management, including the CA-CAS, CA-CA/UNIX, CA-PRMS and CA-MANMAN product lines, CA-MAXCIM and CA-KBM (formerly SIM/400).
- Human Resource Management, including products such as CA-HRISMA, the CA-Classic/Open and CA-HRS product lines and CA-SAA.
- Warehouse Management, including the CA-Warehouse BOSS product.
- Business Decision and Support Tools, including the CA-20/20 and CA-CONSOL product lines, CA-Fusion and CA-SuperCalc.
- Visual Information, including the CA-Cricket product line, CA-DISSPLA, CA-TELLAGRAF, CA-PLOT OPTIMIZER and CA-Graphics CONNECTION.

Software Pricing

CA's Enterprise License Plan, pioneered in 1992, simplifies software pricing, administration and accounting. Instead of multiple agreement for various CPUs, sites, products and corporate organizations, the client signs one comprehensive contract for the

entire enterprise and a single flat fee replaces everything else.

Professional Services

Professional services provided by CA include custom software development, consulting and education and training.

Clients

Systematics has a six-year multiproduct agreement to use CA products for its North American clients at its facilities in Little Rock (AR).

January 1994, Litton Computer Services has a multiproduct, multi-user license agreement to use CA products on a volume basis in providing services to North American clients.

Federal clients include the U.S. Army, Social Security Administration, the IRS, the Customs Bureau, the U.S. Geological Survey, the Bureau of Engraving and Printing, the Department of Defense and the Postal Service.

CA-UNICENTER clients include the City of Albuquerque, the Bureau of National Affairs, Brake Parts, Rheem Manufacturing Co. and the State of Oregon (Department of Transportation).

Marketing and Sales Alliances

CA distributes, markets and supports its products on a worldwide basis primarily with its own employees, with approximately 3,400 sales and support personnel promoting and licensing CA's products to clients.

In November 1994, CA announced it would add cross-platform software distribution and event-alert software from ICL to the CA-UNICENTER product. ICL's Systems

Integration and Services business will offer CA-UNICENTER as a core component of their systems management solutions and ICL's Client Server Systems Technology business will proactively market CA-UNICENTER by shipping a copy with each of its mainstream *teamserver* and *superserver* products. The agreement follows a far-ranging development, marketing and support alliance between CA and ICL announced in July 1994.

In October 1994, CA announced a development and marketing alliance with Premenos Corporation that provides for integration of Premenos EDI/400 and EDI/e software with CA's integrated manufacturing and distribution solutions.

In August 1994, IBM reaffirmed its original choice of CA-INGRES database technology for the Royal Air Force's \$638 million, ten-year Logistics Information Technology Strategy.

In April 1994, CA and Candle Corporation announced a development alliance that will provide interoperability between CA-UNICENTER and the Candle Availability Command Center to benefit users in the areas of integrated systems, availability and performance management.

In March 1994, CA announced that Data General will become the first enterprise server vendor to market, sell and support CA-UNICENTER. Data General's systems integration group is also a CA-certified consulting partner for CA-UNICENTER across multiple UNIX platforms.

In March 1994, CA announced that IBM France will distribute CA-UNICENTER for AIX on the IBM RISC System/6000,

providing IBM the opportunity to offer multiplatform and multivendor licenses.

CA also has various alliances/VAR agreements related to certain of its products with Data General, AT&T GIS (NCR), Hewlett-Packard, Adage Systems, NEC, Sun Microsystems, Microsoft, SGI, NeTpower, Siemens, Bull, Olivetti, Symbol, Intel, Pyramid, Sequent, Unisys, Apple, Lotus, Compaq, Novell, ICL, DEC, Stratus and Santa Cruz Operation.

More than 400 VARs are enrolled in CA's CA-INGRES Dollar Program whereby CA shares license fees with CA-OpenINGRES VARs in order to reward existing third-party vendors and to expand the CA-Open INGRES VAR community.

Competitors

Competitors include hardware companies supplying systems software, such as DEC, Hewlett-Packard and IBM.

In the systems management area, competitors include Candle, Boole & Babbage, LEGENT and BMC Software.

In the database management system area, major competitors include Oracle, Sybase and Informix.

In the application development area, competitors include IBM, DEC, Andersen Consulting and Novell, among others.

In the area of application software products, competitors include Dun & Bradstreet Software, PeopleSoft and SAP America.

INPUT Assessment

CA's strengths include:

- The CA90s architecture, which allows CA to bring its applications quickly and efficiently to new platforms as they develop
- Extensive product line and availability of products for a range of platforms
- Software and client support

Challenges for the coming year include:

- Keeping CA from becoming bureaucratic so that it can respond quickly to individual clients and to the market as a whole
- Integrating new technologies (especially in client/server) into CA's product lines

**COMPUTER ASSOCIATES
INTERNATIONAL, INC.**

One Computer Associates Plaza
Islandia, NY 11788-7000
Phone: (516) 342-5224
Fax: (516) 342-5329

Chairman & CEO: Charles B. Wang
Status: Public Corporation
Total Employees: 7,400
Total Revenue: \$1,841,008,000
Fiscal Year End: 3/31/93

Key Points

- Computer Associates International (CA) is the world's leading independent software provider of systems management, database management, application development, and business application software.
- In 1993, financial results for the year were better than projected, reflecting a turnaround in CA's relationship with its corporate customers.
- Financial results for 1993 indicate that the erosion CA was facing in its mainframe business has been reversed and new sales are now being realized from the existing client base.
- With acquisition of Nantucket's Clipper database product, CA gained an installed customer base estimated at 500,000. CA also has revealed development plans for the Clipper product line quelling third party developer fears.
- In February 1993, CA announced reorganization plans for its personal computer software sales department to prepare for a major promotion of its CA-UNICENTER product line directed at the microcomputer market.
- Over 90% of the Fortune and Forbes 500 companies use Computer Associates software.

Company Description

Computer Associates International, Inc. (CA) was incorporated in 1974 and commenced operations in 1976. As a result of ongoing internal development and numerous acquisitions, the company currently markets and supports more than 300 systems and application software products worldwide.

CA's product line includes systems management, database management, application development, and business applications software for use on mainframe, midrange, and desktop computers. The company serves business, government, scientific, and educational organizations through direct operations in 26 countries.

Strategy

CA's strategy is to provide its clients with corporate wide software solutions through internal development, technology acquisition, and extensive product integration. As part of this strategy, in April 1990, CA announced that all of its product development would be in conformance with CA90s: Computing Architecture for the 90s.

This layered architecture is the blueprint for the continuing development of all CA software, which enables clients to choose the hardware platform of their choice, or even a combination of hardware platforms, based upon their distributed or cooperative processing requirements. As a result the company is able to provide enterprise-wide solutions.

Though CA's mainframe business currently accounts for approximately 75% of sales, CA's president Charles Wang has been quoted in the computer industry press describing CA's target revenue mix in the next five years. This revenue mix would be 25% mainframe product revenues, 25% personal computer, 25% UNIX and 25% other environments.

CA continues to follow an aggressive acquisition growth strategy to build its product offerings.

**Operations/
Structure**

In North America, CA's sales and support personnel are currently organized into two groups: the North American Group and the Third Party Sales Group. The North American Group is responsible for sales, marketing, and service of products sold directly to the end-user and the Third Party Sales Group is responsible for sales, marketing, and service of CA's software products through third party authorized vendors.

CA operates approximately 60 offices throughout the U.S. in addition to its headquarters in Islandia, New York.

Outside North America, CA operates through wholly owned subsidiaries located in 26 countries and operates over 70 foreign office facilities outside the U.S. Principal offices are located in Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Holland, Hong Kong, Ireland, Israel, Italy, Japan, Korea, Malaysia, New Zealand, Norway, the Philippines, Portugal, Scotland, Singapore, Spain, Sweden, Switzerland, Taiwan, and the U.K.

Financials

Fiscal 1993 revenue reached \$1.8 billion, a 22% increase over fiscal 1992 revenue of \$1.5 billion. Net income rose 57%, from \$162.9 million in fiscal 1992 to \$245.5 million in fiscal 1993. A three year financial summary follows:

COMPUTER ASSOCIATES INTERNATIONAL, INC.
THREE-YEAR FINANCIAL SUMMARY
(**\$ thousands, except per share data**)

ITEM	FISCAL YEAR		
	3/93	3/92	3/91
Revenue	\$1,841.0	\$1,508.7	\$1,348.2
Percent increase from previous year	22%	16%	4%
Income before taxes	\$383.6	\$267.0	\$213.5
Percent increase from previous year	44%	25%	11%
Net income	\$245.5	\$162.9	\$130.2
Percent increase from previous year	57%	25%	1%
Earnings per share	\$1.44	\$0.92	\$0.70

Revenue and net income growth for fiscal 1993 were greater than anticipates. Results were attributed to the following:

- The restructuring of its field service organization to place greater emphasis on service
- The offering of new software pricing alternatives
- the introduction of CA-UNICENTER for systems management for non-IBM platforms and,
- CA's strategic alliances with organizations such as Hewlett-Packard, Microsoft, IBM, and Novell

Acquisitions/ Divestitures

Since 1982, CA has completed over 20 acquisitions, as summarized in Exhibit A following this section. With the exception of the Cullinet, UCCEL, and Capex acquisitions, which were accounted for on a pooling of interests basis, all of CA's acquisitions have been by the purchase method. Recent acquisition activity includes the following:

- In September 1992, Computer Associates announced the acquisition of the assets of Glockenspiel Ltd. in Dublin, Ireland. With this acquisition CA enters the C++ market. CA immediately announced plans to embed Glockenspiel CommonView class library technology in CA's "Aspen" project to provide portable application development across Windows, OS/2, and Motif. Aspen is CA's working name for a project designed to develop an object-oriented, GUI-based, high performance compiler for CA-Clipper, CA-dBFast and other xBase languages.
- CA announced in June 1992, the acquisition of privately-held Nantucket Corporation, a leading developer of dBase/xBase-compatible application development systems. The acquisition significantly strengthens CA's position in the PC database market.

In May 1991, CA combined its INFOPOINT banking software product line with the business of the Newtrend Group in a joint venture that is owned in equal shares by CA and the Newtrend Group. Newtrend continues to be privately held.

EXHIBIT A
CA ACQUISITION SUMMARY

COMPANY	PRODUCT LINE	DATE ACQUIRED	PRICE (\$ MILLIONS)
Glockenspiel Ltd.	C++ compiler and CommonView Application development tool	9/92	N/A
Nantucket Corporation	Dbase/xBase-compatible application development systems	6/92	N/A
Crystal Services	Acquisition of comprehensive purchase order system	5/92	
Scancor Ltd. (Europe)	PC Audit tool	3/92	N/A
Access Technology	Presentation graphics	11/91	N/A
Pansophic Systems	CASE, integrated manufacturing software	9/91	\$283
On-Line Software Int'l	Systems software	9/91	\$120
Information Science, Inc.	HRMS software	8/91	N/A
OnGuard product	Tandem-based security tool	7/91	N/A
Manageware, Inc.	Financial modeling product	1/91	N/A
DBMS, Inc.	Data base tools	4/90	N/A
Online Database Software	Quality assurance software	1/90	N/A
Cullinet Software, Inc.	Systems and application software	9/89	\$300 (stock)
Cricket Software, Inc.	Macintosh graphics products	6/89	N/A
Bedford Software Limited	Micro accounting software	6/89	\$13.1
Applied Data Research, Inc.	Systems software	10/88	\$170
Atrium Information Group	Micro Resource family of products	8/88	N/A
UCCEL Corporation	Mainframe System	8/87	\$800 (stock)
L & L Software, Inc.	Micro cost accounting software	5/87	N/A
BPI Systems, Inc.	Micro accounting software	5/87	N/A
Mega Group	Mainframe spreadsheets	12/86	N/A
Integrated Software Systems	Graphics applications	12/86	\$67

COMPANY	PRODUCT LINE	DATE ACQUIRED	PRICE (\$ millions)
Software International	Financial applications	12/86	\$24
Top Secret (CGA product)	MVS security software	12/85	\$25
Management and Computer Services, Inc.	Programmer productivity software	10/85	N/A
Value Software, Inc.	Systems software	4/85	N/A
Basic Software Group	Micro applications	8/85	N/A
Arkay Computer, Inc.	MVS/VSE conversion software	8/84	N/A
Johnson Systems, Inc.	Job accounting software	6/84	\$16
Sorcim Corp.	Micro applications	5/84	\$26.5
Information Unlimited	Micro applications	7/83	\$9.5
Stuart P. Orr & Associates	Financial applications	2/83	N/A
Capex Corp.	Systems software	5/82	\$22 (stock)

Alliances

In 1992 and 1993 CA announced several important strategic alliances.

- In March 1993, CA announced a technology and marketing partnership with Cheyenne Software which will allow CA to utilize Cheyenne device drivers technology to allow CA90s customers access to alternative backup media.
- In March 1993, CA and NCR announced a strategic alliance to provide CA's CA-UNICENTER systems management solution for NCR's System 3000 platforms running the UNIX System V.4 operating system. This alliance allows CA to develop applications for NCR platforms. CA and NCR will conduct joint marketing and sales
- CA announced an alliance in January 1993 with Data General Corporation to provide CA's suite of systems management, business applications, and information management solutions on Data General's AVIion servers under UNIX.
- In September 1992, CA announced a strategic alliance with Sun Microsystems to provide CA-UNICENTER systems management solution for Sun's SPARCserver and SPARCstation families of products.

- In August 1992, CA announced a key strategic alliance with Novell, Inc. under which CA will port its mainframe and midrange systems software to the NetWare network computing environment.

Employees

As of April 30, 1993, CA has approximately 7,400 employees of which 1,093 were located at its headquarters in Islandia (NY), 3,851 at other offices in the U.S., and 2,456 at offices internationally.

Employees in the U.S. are segmented by functional area as follows:

Sales and support	1,750
Product development	700
Other	2,250
TOTAL:	4,700

Key Products and Services

Approximately 64% of CA's total fiscal 1993 revenue was derived from software product licenses and 36% from associated maintenance and professional services.

CA's software products are organized into four categories:

Systems Management Software

Systems Management Software supports automated data center operations. Products are available for AS/400, MVS/VSE/VM, VAX VMS, and IBM PC and compatible operating environments. These products are organized into functional areas and support total data center automation. Functional areas supported address the following:

- Automated Production Control, including products such as CA-7, CA-11, CA-SCHEDULER and CA-OPERA
- Data Center Administration, including products such as CA-NETMAN
- Conversion, including CA-CONVERTOR
- Performance Management and Accounting, including products such as CA-JARS, CA-PMA/ChargeBack, and CA-FASTDASD
- Security, Control and Audit, including products such as CA-ACF2 and CA-TOP SECRET, and CA-EXAMINE.
- Automated Storage Management, including products such as CA-I, CA-DYNAM, CA-ASM2, CA-ARCHIVER and CA-SORT

- COBOL Development Environment, including CA-OPTIMIZER and CA-MetaCOBOL+

Information Management Software

Information Management Software improves productivity by integrating relational data bases, repository services, integrated CASE tools, and application generators.

- Information Management Software is available for MVS/VSE/VM, VAX VMS, UNIX, Unisys, and IBM PC and compatible operating environments
- The Information Management portfolio includes data base management systems such as CA-DATACOM, CA-IDMS, and CA-DB.
- Relational data base software CA-CLIPPER and CA-dBFast and CA-Visual Objects an object oriented database development tool.

Business Applications Software

Business Applications Software addresses both vertical and horizontal markets and includes the following areas:

- Financial management software (MASTERPIECE Series) is available for MVS/VSE, S/38, S/36, AS/400, VAX VMS, Unisys, and Data General operating environments. Micro accounting products are also available for PC-DOS, Microsoft Windows, and Macintosh environments.
- Specialized accounting software is available for MVS/VSE, S/38, AS/400, Unisys, and VAX VMS operating environments.
- Human resources management software is available for MVS/VSE/VM, VSAM, IMS; Wang; UNIX; and IBM PC and compatible operating environments.
- Manufacturing and financial management software includes components that address both manufacturing and financial management functions for discrete, repetitive, and aerospace and defense manufacturing. Products are available for AS/400, MVS/VSE/VM and IBM PC and compatible environments.
- Distribution management software is available for VAX VMS environments.

- Business decision and financial management software is available for MVS/VSE/VM, VAX VMS and PC-DOS environments.
- Visual information software is available for MVS/VSE/VM, VAX VMS, PC-DOS, and Macintosh environments, as well as HP, Sun, Data General, Prime, Control Data, and other systems.

Desktop Software

Desktop Software includes accounting software for IBM and Macintosh personal computers (ACCPAC); project management for PC-DOS and VAX/VMS (CA-SuperProject); graphics software for the Macintosh and PC-DOS (CA-Cricket), decision support software for PC-DOS environments, and desktop resource management for PC-DOS and VAX/VMS (CA-NETMAN).

Professional Services

Professional services provided by CA include custom software development, consulting, and education and training.

Competition

Competitors include:

Hardware companies supplying systems software such as DEC, Hewlett-Packard, and IBM.

Software companies supplying application software products including Microsoft, Borland and Dun & Bradstreet Software.

Industry Markets

CA's products are used by clients in manufacturing, banking, insurance, retailing, and education, as well as government agencies. More than 90% of the Fortune 500 largest U.S. industrial corporations use one or more of CA's software packages.

In the area of data base management systems, graphics, and applications software for the micro, mini, and mainframe computer, the customer base ranges from small business users to Fortune 500 companies.

Geographic Markets

Approximately 46% of CA's fiscal 1993 revenue was derived from the U.S. and 53% from international sources. A three-year geographic financial summary follows:

COMPUTER ASSOCIATES INTERNATIONAL, INC.
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY
(\$ millions)

ITEM	FISCAL YEAR					
	3/93		3/92		3/91	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Revenue						
· U.S. (a)	\$846.3	46%	\$660.6	44%	\$649.3	50%
· Foreign	\$994.7	54%	\$848.1	56%	\$651.2	52.50%
TOTAL	\$1841.0	100%	\$1,508.7	100%	\$1,300.5	100%
Net income						
· U.S.	\$170.7	70%	\$103.6	64%	\$123.9	95%
· Foreign	\$74.8	30%	\$59.3	36%	\$6.3	5%
TOTAL	\$245.5	100%	\$162.9	100%	\$132.2	100%

(a) Includes export sales to unaffiliated customers of approximately \$18.9 million, \$18.6 million, and \$22.9 million in fiscal 1991, 1990, and 1989, respectively.

CA products are also marketed by independent distributors in areas where the company does not have a direct presence. Revenues from independent distributors accounted for approximately 2% of fiscal 1993 revenue.

COMPANY PROFILE

**COMPUTER ASSOCIATES
INTERNATIONAL, INC.**
711 Stewart Avenue
Garden City, NY 11530-4787
(516) 227-3300

Charles B. Wang, Chairman and CEO
Anthony W. Wang, President and COO
Public Corporation, NYSE
Total Employees: 6,700 (4/91)
Total Revenue, Fiscal Year End
3/31/91: \$1,348,171,000

The Company

Computer Associates International, Inc. (CA) was incorporated in 1974 and commenced operations in 1976. As a result of ongoing internal development and numerous acquisitions, the company currently markets and supports more than 300 systems and application software products worldwide. CA's product line includes systems management, information management, and business applications software for use on mainframe, midrange, and desktop computers.

CA's strategy is to provide its clients with corporate wide software solutions through internal development, technology acquisition, and extensive product integration. As part of this strategy, in April 1990, CA announced that all of its product development would be in conformance with *CA90s: Computing Architecture for the 90s*. This layered architecture is the blueprint for the continuing development of all CA software, which enables clients to choose the hardware platform of their choice, or even a combination of hardware platforms, based upon their distributed or cooperative processing requirements.

Fiscal 1991 revenue reached nearly \$1.35 billion, a 4% increase over fiscal 1990 revenue of \$1.3 billion. Net income rose 1%, from \$157.8 million in fiscal 1990 to \$159.3 million in fiscal 1991. A three-year financial summary follows:

COMPUTER ASSOCIATES INTERNATIONAL, INC.
THREE-YEAR FINANCIAL SUMMARY
(\$ millions, except per share data)

ITEM	FISCAL YEAR		
	3/91	3/90	3/89
Revenue	\$1,348.2	\$1,296.0	\$1,232.3
· Percent increase from previous year	4%	5%	33%
Income before taxes	\$261.2	\$235.7	\$250.0
· Percent increase (decrease) from previous year	11%	(6%)	N/A
Net income	\$159.3	\$157.8	\$148.3
· Percent increase (decrease) from previous year	1%	6%	N/A
Earnings per share	\$0.86	\$0.85	\$0.84
· Percent increase (decrease) from previous year	1%	1%	N/A

Revenue and net income growth for fiscal 1991 was less than anticipated. Results were attributed to the following:

- During early fiscal 1991, sales and support operations were realigned to mirror clients' requirements more closely and the company launched its CA90s strategy. As a result, productive time of the sales force was impacted, having a negative effect on the results of the first half of the year. The last two fiscal quarters were confronted with the war and worldwide economic problems.
- Selling, marketing, and administration expenses were 54% of revenue in both fiscal 1991 and fiscal 1990.
 - Fiscal 1990 results include approximately \$30 million of one-time charges associated with the acquisition of Cullinet in September 1989. After adjusting for these one-time charges, selling, marketing, and administrative charges increased by 2% of revenues in fiscal 1991 as a result of higher per capita costs, promotion expenses, and additions to reserves.
- Product development costs charged to operations were \$177.4 million in fiscal 1991, compared to \$171.2 million in fiscal 1990. During fiscal 1991, CA produced more than 30 new products and enhancements to its existing products.

Revenue for the three months ending June 30, 1991 reached \$263.2 million, a 3% increase over \$255.1 million for the same period in 1990. Net income was \$3.67 million, compared to net income of \$3.59 million for the same period a year ago.

- Results for the recent quarter do not include revenues for the month of June from INFOPOINT banking products or revenues for the entire three months from Japan.
- Nonetheless, quarter revenues and net income were lower than expected. The results were attributed to general economic conditions and the deferral of buying decisions.

Since 1982, CA has completed over 20 acquisitions, as summarized in the exhibit. With the exception of the Cullinet, UCCEL, and Capex acquisitions, which were accounted for on a pooling of interests basis, all of the company's acquisitions have been accounted for by the purchase method. Recent acquisition activity includes the following:

- In September 1991, CA announced a definitive agreement to acquire Pansophic Systems, Inc. of Lisle (IL) for approximately \$283 million.
- Pansophic, founded in 1968, provides CASE, applications control, and information retrieval and management systems software products for IBM mainframes and integrated manufacturing, distribution, and financial application software for IBM AS/400 systems.
- Major products include TELON, Panvalet, EASYTRIEVE, FUSION, and Pansophic Resource Management System.
- Pansophic, with approximately 1,600 employees, had revenue of \$230.2 million and net income of \$20.6 million for its fiscal year ending April 30, 1991.
- The acquisition is expected to be complete in October 1991.
- In September 1991, CA finalized the acquisition of On-Line Software International, Inc. of Fort Lee (NJ) for approximately \$120 million (\$15.75 per share).
- On-Line Software develops, markets, and supports development tools and CICS and DB2 systems software products designed to enhance the productivity of users of IBM and compatible mainframes. Major products include RAMIS, UFO, and InterTest.

- On-Line Software had revenue of \$101.3 million and net income of over \$4.5 million for the fiscal year ending May 31, 1991 and currently has approximately 660 employees worldwide.
- In August 1991, CA finalized the acquisition of substantially all the assets of Information Science, Incorporated (InSci) of Montvale (NJ). Terms of the purchase were not disclosed.
- InSci, founded in 1965, provided human resource management system application software products for IBM and compatible mainframes.
- InSci, with approximately 120 employees, had revenue of \$13.7 million and net losses of \$960,000 for the fiscal year ending April 30, 1990.
- In July 1991, CA acquired the rights to license and distribute OnGuard, a Tandem-based security software package, from Panoramic, Inc. The product is being marketed by CA as CA-ONGUARD.
- In January 1991, CA acquired substantially all the assets of Manageware, Inc. and its principle product Competel. Marketed now as CA-Competel, the product is a multidimensional financial modeling tool for the Microsoft Windows environment.

In May 1991, CA combined its INFOPOINT banking software product line with the business of the The Newtrend Group in a joint venture that is owned in equal shares by CA and The Newtrend Group. Newtrend continues to be privately held.

Recent announcements include the following:

- In August 1991, CA and Tandem announced a cooperative agreement whereby CA will develop systems management software for Tandem NonStop systems. The products to be developed will extend and complement existing operations management products provided by Tandem and its other strategic software partners.
- In August 1991, CA and Apple announced an agreement whereby CA will support the Macintosh computer as a strategic platform in client/server computing.

EXHIBIT
CA ACQUISITION SUMMARY

COMPANY	PRODUCT LINE	DATE ACQUIRED	PRICE (\$ millions)
On-Line Software Int'l	Systems software	9/91	\$120
Information Science, Inc.	HRMS software	8/91	N/A
OnGuard product	Tandem-based security tool	7/91	N/A
Manageware, Inc.	Financial modeling product	1/91	N/A
DBMS, Inc.	Data base tools	4/90	N/A
Online Database Software	Quality assurance software	1/90	N/A
Cullinet Software, Inc.	Systems and application software	9/89	\$300 (stock)
Cricket Software, Inc.	Macintosh graphics products	6/89	N/A
Bedford Software Limited	Micro accounting software	6/89	\$13.1
Applied Data Research, Inc.	Systems software	10/88	\$170
UCCEL Corporation	Mainframe systems, banking software	8/87	\$800 (stock)
L & L Software, Inc.	Micro cost accounting software	5/87	N/A
BPI Systems, Inc.	Micro accounting software	5/87	N/A
Mega Group	Mainframe spreadsheets	12/86	N/A
Integrated Software Systems	Graphics applications	12/86	\$67
Software International	Financial applications	12/86	\$24
Top Secret (CGA product)	MVS security software	12/85	\$25
Management and Computer Services, Inc.	Programmer productivity software	10/85	N/A
Value Software, Inc.	Systems software	4/85	N/A
Basic Software Group	Micro applications	8/85	N/A
Arkay Computer, Inc.	MVS/VSE conversion software	8/84	N/A
Johnson Systems, Inc.	Job accounting software	6/84	\$16
Sorcim Corp.	Micro applications	5/84	\$26.5
Information Unlimited	Micro applications	7/83	\$9.5
Stuart P. Orr and Associates	Financial applications	2/83	N/A
Capex Corp.	Systems software	5/82	\$22 (stock)

- CA has licensed Apple's Data Access Language (DAL) and will develop and distribute DAL server software for CA data bases (including CA-DATACOM, CA-IDMS, and CA-DB), as well as distribute other selected Apple-developed DAL server software.
- CA also plans to develop Macintosh-based client/server versions of its Masterpiece business application software.
- In January 1991, CA and Hewlett-Packard formed a strategic business relationship whereby CA will develop UNIX-based systems management, information management, and business applications software for the HP 9000 Series 800 business computer.

CA is currently organized into four business groups as follows:

- North America Group markets and supports CA's systems management, information management, and business application software products in North America.
- The Asia Pacific and Europe Groups market and support all CA software products outside North America.
- The Micro Products Division markets the company's microcomputer software products in North America.

As of April 30, 1991, CA had approximately 6,700 employees, of which 950 were located at its headquarters in Garden City, 3,250 at other offices in the U.S., and 2,500 at offices in foreign countries. Employees are segmented by functional area as follows:

Sales and support	3,350
Product development	1,775
Other	<u>1,675</u>
	6,700

CA currently has well over 7,000 employees.

CA's major competitors, by product area, include the following:

- Systems software: IBM
- Application software: D&B Software
- Microcomputer software: Lotus Development, DAC Software, and Peachtree

Key Products and Services

Approximately 66% (\$888.0 million) of CA's total fiscal 1991 revenue was derived from software product licenses and 34% (\$460.1 million) from associated maintenance and professional services.

A further breakdown of CA's fiscal 1991 U.S. revenue (\$650.5 million) by product/service is estimated by INPUT as follows:

Systems software	63%
Application software	31%
Professional services	<u>6%</u>
	100%

CA currently offers more than 300 software products that support, as a group, over 30 computer operating systems. The company has over 150,000 mainframe products installed and has sold more than one million copies of its integrated accounting and productivity microcomputer software products.

CA's software products are organized into four categories as follows:

- Systems Management Software supports automated data center operations. Products are available for MVS/VSE/VM, VAX VMS, and IBM PC and compatible operating environments. These products are organized into functional areas and support total data center automation. Functional areas supported address the following:
 - Automated Production Control, including products such as CA-SCHEDULER and CA-OPERA
 - Data Center Administration, including products such as CA-NETMAN
 - Conversion, including CA-CONVERTOR
 - Performance Management and Accounting, including products such as CA-JARS and CA-FASTDASD
 - Security, Control and Audit, including products such as CA-ACF2 and CA-TOP SECRET
 - Automated Storage Management, including products such as CA-ARCHIVER and CA-SORT
 - COBOL Development Environment, including CA-OPTIMIZER and CA-MetaCOBOL+

- Information Management Software improves productivity by integrating relational data bases, repository services, integrated CASE tools, and application generators.
- Information Management Software is available for MVS/VSE/VM, VAX VMS, UNIX, Unisys, and IBM PC and compatible operating environments
- The Information Management portfolio includes data base management systems such as CA-DATACOM, CA-IDMS, and CA-DB.
- Business Applications Software addresses both vertical and horizontal markets and includes the following areas:
 - Financial management software (MASTERPIECE Series) is available for MVS/VSE, S/38, S/36, AS/400, VAX VMS, Unisys, and Data General operating environments. Micro accounting products are also available for PC-DOS, Microsoft Windows, and Macintosh environments.
 - Specialized accounting software is available for MVS/VSE, S/38, AS/400, Unisys, and VAX VMS operating environments.
 - Human resources management software is available for MVS/VSE/VM, VSAM, IMS; Wang; UNIX; and IBM PC and compatible operating environments.
 - Manufacturing and financial management software includes components that address both manufacturing and financial management functions for discrete, repetitive, and aerospace and defense manufacturing. Products are available for MVS/VSE/VM and IBM PC and compatible environments.
 - Distribution management software is available for VAX VMS environments.
 - Business decision and financial management software is available for MVS/VSE/VM, VAX VMS and PC-DOS environments.
 - Visual information software is available for MVS/VSE/VM, VAX VMS, PC-DOS, and Macintosh environments, as well as HP, Sun, Data General, Prime, Control Data, and other systems.

- Desktop Software includes accounting software for IBM and Macintosh personal computers (ACCPAC); project management for PC-DOS and VAX/VMS (CA-SuperProject); graphics software for the Macintosh and PC-DOS (CA-Cricket), decision support software for PC-DOS environments, and desktop resource management for PC-DOS and VAX/VMS (CA-NETMAN).

Professional services provided by CA include custom software development, consulting, and education and training.

Industry Markets

CA's products are used by clients in manufacturing, banking, insurance, retailing, and education, as well as government agencies. More than 90% of the Fortune 500 largest U.S. industrial corporations use one or more of CA's mainframe packages.

In the area of data base management systems, graphics, and applications software for the micro, mini, and mainframe computer, the customer base ranges from small business users to Fortune 500 companies.

Geographic Markets

Approximately 48% of CA's fiscal 1991 revenue was derived from the U.S. and 52% from international sources. A three-year geographic financial summary follows:

**COMPUTER ASSOCIATES INTERNATIONAL, INC.
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY
(\$ millions)**

ITEM	FISCAL YEAR					
	3/91		3/90		3/89	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Revenue						
• U.S. (a)	\$650.5	48%	\$693.0	53%	\$704.3	57%
• Foreign	697.7	52%	603.0	47%	528.8	43%
	\$1,348.2	100%	\$1,296.0	100%	\$1,233.1	100%
Net Income						
• U.S.	\$150.3	94%	\$113.8	72%	\$111.9	75%
• Foreign	9.0	6%	43.9	28%	36.4	25%
	\$159.3	100%	\$157.7	100%	\$148.3	100%

(a) Includes export sales to unaffiliated customers of approximately \$18.9 million, \$18.6 million, and \$22.9 million in fiscal 1991, 1990, and 1989, respectively.

Royalties from foreign subsidiaries were approximately \$186.5 million, \$141.6 million, and \$154.7 million in fiscal 1991, 1990, and 1989, respectively.

CA operates approximately 70 offices throughout the U.S. in addition to its headquarters in Garden City.

CA operates through wholly owned subsidiaries located in 26 countries outside North America and operates over 50 foreign office facilities outside the U.S. Principal offices are located in Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Holland, Hong Kong, Ireland, Israel, Italy, Korea, Malaysia, New Zealand, Norway, the Philippines, Singapore, Spain, Sweden, Switzerland, and the U.K.

CA products are also marketed by independent distributors in areas where the company does not have a direct presence. Revenues from independent distributors accounted for approximately 1.4% of fiscal 1991 revenue.

Computer Hardware

CA has various computers from IBM, DEC, and Data General installed at centers in Garden City, Princeton (NJ), San Diego (CA), and Chicago (IL) for internal product development, technical support, and administrative purposes.

COMPANY PROFILE

COMPUTER ASSOCIATES INTERNATIONAL, INC.

711 Stewart Avenue
Garden City, NY 11530-4787
(516) 227-3300

Charles B. Wang, Chairman and CEO
Anthony W. Wang, President and COO
Public Corporation, NYSE
Total Employees: 7,000 (12/90)
Total Revenue, Fiscal Year End
3/31/90: \$1,295,987,000

The Company

Computer Associates International, Inc. (CA) was incorporated in 1974 and commenced operations in 1976. As a result of ongoing internal development and numerous acquisitions, the company currently markets and supports more than 250 systems and application software products worldwide. CA's product line includes systems management, information management, and business applications software for use on mainframe, midrange, and desktop computers.

CA's strategy is to provide its clients with corporatewide software solutions through internal development, technology acquisition, and extensive product integration. As part of this strategy, in April 1990, CA announced that all of its product development would be in conformance with *CA90s: Computing Architecture for the 90s*. This layered architecture is the blueprint for the continuing development of all CA software, which enables clients to choose the hardware platform of their choice, or even a combination of hardware platforms, based upon their distributed or cooperative processing requirements.

In September 1989, CA made its second largest acquisition to date with the purchase of Cullinet Software, Inc. of Westwood (MA) for approximately 17.4 million shares of CA common stock (valued at about \$300 million). The acquisition was accounted for as a pooling of interests.

- Cullinet provided data base management systems software and manufacturing, human resources, and distribution application software products for IBM mainframes and DEC VAX systems. Cullinet's principal product is the IDMS data base management system.
- Cullinet had revenue of \$202.9 million and net losses of \$19.8 million for the fiscal year ending April 30, 1989. The operations of Cullinet have been merged into CA.

Fiscal 1990 revenue reached nearly \$1.3 billion, a 5% increase over fiscal 1989 revenue of \$1.23 billion. Net income rose 21%, from \$130.3 million in fiscal 1989 to over \$157.7 million in fiscal 1990.

- In the five-year summary that follows, financials have been restated to reflect the pooling of interests acquisition of Cullinet. Results reported for years prior to fiscal 1990 combine CA's audited financials for the year ending March 31 with Cullinet's unaudited financials adjusted for periods ending March 31 (Cullinet's fiscal year end prior to the acquisition was April 30).

**COMPUTER ASSOCIATES INTERNATIONAL, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ millions, except per share data)**

ITEM	FISCAL YEAR				
	3/90	3/89	3/88	3/87	3/86
Revenue	\$1,296.0	\$1,232.3	\$923.7	\$628.8	\$509.9
• Percent increase from previous year	5%	33%	47%	23%	N/A
Net income	\$157.8	\$130.3	\$64.2	\$30.4	\$47.5
• Percent increase (decrease) from previous year	21%	103%	111%	(36%)	N/A
Earnings per share	\$0.85	\$0.71	\$0.37	\$0.18	\$0.29
• Percent Increase (decrease) from previous year	20%	92%	106%	(38%)	N/A

Revenue growth for fiscal 1990 was adversely impacted by the protracted Cullinet acquisition process, as well as the significant management effort expended in integrating the Cullinet product line. With these issues resolved, CA has refocused its resources on profitability and growth.

- Selling, marketing, and administration expenses, on a comparable basis, grew to 54% of revenue in fiscal 1990 from 51% in fiscal 1989.
- Fiscal 1990 results include approximately \$30 million of one-time charges associated with the acquisition of Cullinet, as well as additional costs associated with raising the level of client service and support.

- For fiscal 1990, product development costs charged to operations were \$171.2 million and capitalized costs were nearly \$17 million.
- Revenue for the six months ending September 30, 1990 reached \$565.7 million, a 3% decrease from \$585.2 million for the same period a year ago. Net income grew 55%, from \$20.3 million to \$31.5 million.

Since 1982, CA has made over 20 acquisitions, as summarized in the exhibit.

- With the exception of the Cullinet, UCCEL, and Capex acquisitions, which were accounted for on a pooling of interests basis, all of the company's acquisitions have been accounted for by the purchase method.

CA is organized into four business groups as follows:

- North America Group markets and supports CA's management, information and business application software products in North America.
- The Asia Pacific and Europe Groups market and support all CA software products outside North America.
- The Micro Products Division markets the company's microcomputer software products in North America.

EXHIBIT
CA ACQUISITION SUMMARY

COMPANY	PRODUCT LINE	DATE ACQUIRED	PRICE (\$ millions)
DBMS, Inc.	Data base tools	4/90	N/A
Online Database Software	Quality assurance software	1/90	N/A
Cullinet Software, Inc.	Systems and application software	9/89	\$300 (stock)
Cricket Software, Inc.	Macintosh graphics products	6/89	N/A
Bedford Software Limited	Micro accounting software	6/89	\$13.1
Applied Data Research, Inc.	Systems software	10/88	\$170
UCCEL Corporation	Mainframe systems and banking software	8/87	\$800 (stock)
L & L Software, Inc.	Micro cost accounting software	5/87	N/A
BPI Systems, Inc.	Micro accounting software	5/87	N/A
Mega Group	Mainframe spreadsheets	12/86	N/A
Integrated Software Systems Corp.	Graphics applications	12/86	\$67
Software International Corporation	Financial applications	12/86	\$24
Top Secret (CGA product)	MVS security software	12/85	\$25
Management and Computer Services, Inc.	Programmer productivity software	10/85	N/A
Value Software, Inc.	Systems software	4/85	N/A
Basic Software Group	Micro applications	8/85	N/A
Arkay Computer, Inc.	MVS/VSE conversion software	8/84	N/A
Johnson Systems, Inc.	Job accounting software	6/84	\$16
Sorcim Corp.	Micro applications	5/84	\$26.5
Information Unlimited Software, Inc.	Micro applications	7/83	\$9.5
Stuart P. Orr and Associates	Financial applications	2/83	N/A
Capex Corp.	Systems software	5/82	\$22 (stock)

As of April 30, 1990 CA had approximately 6,900 employees, of which 925 were located at its headquarters in Garden City, 3,455 at other offices in the U.S., and 2,520 at offices in foreign countries. Employees are segmented by functional area as follows:

Sales and support	3,400
Product development	1,850
Other	<u>1,650</u>
	6,900

CA currently has 7,000 employees.

CA's major competitors, by product area, include the following:

- Systems software: IBM
- Application software: D&B Software
- Microcomputer software: Lotus Development, DAC Software, and Peachtree

Key Products and Services

Approximately 68% (\$887.3 million) of CA's total fiscal 1990 revenue was derived from software product licenses and 32% (\$408.7 million) from associated maintenance and professional services.

A further breakdown of CA's fiscal 1990 U.S. revenue (\$693 million) by product/service is estimated by INPUT as follows:

Systems software	63%
Application software	31%
Professional services	<u>6%</u>
	100%

CA currently offers more than 250 software products that support, as a group, over 30 computer operating systems. The company has over 150,000 mainframe products installed and has sold more than one million copies of its integrated accounting and productivity microcomputer software products.

CA's software products are organized into three categories as follows:

- Systems Management Software supports automated data center operations. Products are available for MVS/VSE/VM, VAX VMS, and IBM PC and compatible operating environments. Functional areas supported address the following:

- Data Center Automation, including products such as CA-NETMAN
- Automated Production Control, including products such as CA-SCHEDULER and CA-OPERA
- Automated Storage Management, including products such as CA-ARCHIVER and CA-SORT
- Performance Management and Accounting, including products such as CA-JARS and CA-FASTDASD
- Security, Control and Audit, including products such as CA-ACF2 and CA-TOP SECRET

- Information Management Software improves productivity by integrating relational data bases, repository services, integrated CASE tools, and application generators.
 - Information Management Software is available for MVS/VSE/VM, VAX VMS, and IBM PC and compatible operating environments
 - The Information Management portfolio includes products such as CA-DATACOM and CA-IDMS
- Business Applications Software addresses both vertical and horizontal markets and includes the following areas:
 - Financial management software (MASTERPIECE Series) is available for MVS/VSE, S/38, S/36, AS/400, VAX VMS, Unisys, and Data General operating environments. Micro accounting products are also available for PC-DOS and Macintosh environments.
 - Human resources management software (CA-HRS system) is available for MVS/VSE/VM and IBM PC and compatible operating environments.
 - Banking software (CA-INFOPOINT Series) is available for MVS/VSE operating environments.
 - Manufacturing management software (CA-CAS system) includes components that address both manufacturing and financial management functions for discrete, repetitive, and aerospace and defense manufacturing. Products are available for MVS/VSE/VM and IBM PC and compatible environments.

- Distribution management software (CA-DMS system) is available for VAX VMS environments.
- Decision support software is available for MVS/VSE/VM, VAX VMS, PC-DOS, and OS/2 environments.
- Visual information software is available for MVS/VSE/VM, VAX VMS, PC-DOS, and Macintosh environments.

Professional services provided by CA include custom software development, consulting, and education and training.

Industry Markets

CA's products are used by clients in manufacturing, banking, insurance, retailing, and education, as well as government agencies. More than 85% of the Fortune 500 largest U.S. industrial corporations use one or more of CA's mainframe packages.

In the area of data base management systems, graphics, and applications software for the micro, mini, and mainframe computer, the customer base ranges from small business users to Fortune 500 companies.

Geographic Markets

Approximately 53% of CA's fiscal 1990 revenue was derived from the U.S. and 47% from international sources. A geographic financial summary follows:

ITEM	3/90	
	\$ MILLIONS	PERCENT OF TOTAL
Revenue • U.S. (a) • Foreign	\$693.0 603.0 \$1,296.0	53% 47% 100%
Net income • U.S. • Foreign	\$113.8 43.9 \$157.7	72% 28% 100%

(a) Includes export sales to unaffiliated customers of approximately \$18.6 million.

Royalties from foreign subsidiaries were approximately \$141.6 million in fiscal 1990.

CA operates approximately 70 offices throughout the U.S. in addition to its headquarters in Garden City.

CA operates through wholly owned subsidiaries located in 26 countries outside North America and operates over 50 foreign office facilities outside the U.S. Principal offices are located in Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Holland, Hong Kong, Ireland, Israel, Italy, Japan, Korea, Malaysia, New Zealand, Norway, the Philippines, Singapore, Spain, Sweden, Switzerland, and the U.K.

CA products are also marketed by independent distributors in areas where the company does not have a direct presence. Revenues from independent distributors accounted for approximately 1% of fiscal 1990 revenue.

Computer Hardware

CA has various computers from IBM, DEC, and Data General installed at centers in Garden City, Princeton (NJ), San Diego (CA), and Chicago (IL) for internal product development, technical support, and administrative purposes.

COMPANY PROFILE

COMPUTER ASSOCIATES INTERNATIONAL, INC.

711 Stewart Avenue
Garden City, NY 11530-4787
(516) 227-3300

Charles B. Wang, Chairman and CEO
Anthony W. Wang, President and COO
Public Corporation, NYSE
Total Employees: 4,469 (5/88)
Total Revenue, Fiscal Year End
3/31/88: \$709,109,000

The Company

Computer Associates International, Inc. (CAI) was incorporated in 1974 and commenced operations in 1976. As a result of ongoing internal development and numerous acquisitions, the company currently markets and supports more than 100 software products worldwide. CAI's product line includes systems software, relational data base management systems, and application software for use on mainframes, minicomputers, and microcomputers.

In September 1988 CAI announced that it agreed to acquire Applied Data Research, Inc. (ADR) from Ameritech for \$170 million.

- ADR, a provider of systems software products to cross industry markets, had revenue of approximately \$172.9 million in 1987.
- Pending merger approval, ADR would be part of a new data base and programmer productivity unit within CAI's Application Products Division.

Fiscal 1988 revenue reached \$709.1 million, a 57% increase over fiscal 1987 revenue of \$452.3 million. Net income rose 103%, from \$50.2 million in fiscal 1987, to over \$101.8 million in fiscal 1988. In the five-year summary that follows, financials have been restated to include the pooling of interests acquisition of UCCEL Corporation which was completed in August 1987.

COMPUTER ASSOCIATES INTERNATIONAL, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	3/88	3/87	3/86	3/85	3/84
Revenue • Percent increase from previous year	\$709,109 57%	\$452,289 40%	\$321,985 41%	\$227,806 44%	\$158,527 N/A
Income before taxes and extraordinary items • Percent increase from previous year	\$170,086 79%	\$94,812 68%	\$56,302 N/A	N/A N/A	N/A N/A
Net income • Percent increase from previous year	\$101,828 103%	\$50,227 36%	\$37,055 33%	\$27,844 146%	\$11,320 N/A
Earnings per share (a) • Percent increase from previous year	\$1.29 95%	\$0.66 57%	\$0.42 40%	\$0.30 76%	\$0.17 N/A

(a) Restated to reflect a 2-for-1 stock split effective May 7, 1987.

CAI management attributes the company's revenue growth to the licensing of greater numbers of products, both developed and acquired.

Since 1982, CAI has made 15 acquisitions, as summarized in Exhibit A.

With the exception of the Capex and UCCEL acquisitions, which were accounting for on a pooling of interests basis, all of the company's acquisitions have been accounted for by the purchase method.

Product development costs charged to operations were approximately \$81.5 million (11% of revenue) in fiscal 1988, \$64.3 million (14% of revenue) in fiscal 1987, and \$58.1 million (18% of revenue) in fiscal 1986. In fiscal 1988 and 1987, CAI also capitalized \$7.9 million and \$7.1 million, respectively, of research and development costs.

Revenue for the three months ending June 30, 1988 reached \$185.7 million, a 33% increase over \$139.3 million for the same period in 1987. Net income for the period was \$16.9 million, an increase of 83% over \$9.2 million for the same period a year ago.

EXHIBIT A

COMPUTER ASSOCIATES INTERNATIONAL, INC.
ACQUISITION SUMMARY

COMPANY	PRODUCT LINE	DATE ACQUIRED	PRICE (\$ millions)
UCCEL Corporation	Mainframe systems and banking software	8/87	\$800 (stock)
L & L Software, Inc.	Micro-based cost accounting software	5/87	N/A
BPI Systems, Inc.	Micro accounting software	5/87	N/A
Mega Group	Mainframe spreadsheets	12/86	N/A
Integrated Software Systems Corp.	Graphics applications	12/86	\$67
Software International Corporation	Financial applications	12/86	\$24
Top Secret (CGA Computer product)	MVS security software	12/85	\$25
Management and Computer Services, Inc.	Programmer productivity software	10/85	N/A
Value Software, Inc.	Systems software	4/85	N/A
Basic Software Group	Micro applications	8/85	N/A
Arkay Computer, Inc.	MVS/VSE conversion software	8/84	N/A
Johnson Systems, Inc.	Job accounting software	6/84	\$16
Sorcim Corp.	Micro applications	5/84	\$26.5
Information Unlimited Software, Inc.	Micro applications	7/83	\$9.5
Stuart P. Orr and Associates, Inc.	Financial applications	2/83	N/A
Capex Corp.	Systems software	5/82	\$22 (stock)

CAI is organized into five divisions as follows:

- The Systems Products Division (SPD) markets and supports the company's systems software products in North America. In addition, there is a dedicated sales force for sales to federal government data centers and national accounts.
- The Applications Products Division (APD) markets and supports the company's financial applications, graphics, project planning, data base management systems, decision support, and programmer productivity software in North America. APD is organized into 20 regions.
- The Micro Products Division (MPD) markets the company's microcomputer software products in the U.S. and Canada. This division is organized into four regions served by 13 sales offices that market directly to distributors and dealers. MPD has dedicated corporate and direct sales forces that market the company's microcomputer products and support services to large corporate clients, OEMs, government clients, and educational institutions.
- The Far East Products Division (FPD) and European Products Division (EPD) serve as the distribution arms for SPD, APD, and MPD products outside North America. They oversee the company's subsidiaries in 20 foreign countries, as well as the company's independent distributors in those countries where CAI does not have its own operations.

As of May 31, 1988 CAI had approximately 4,469 employees, of which 810 were located at its headquarters in Garden City, 2,475 at other offices in the U.S., and 1,184 at offices in foreign countries. Employees are segmented by functional area as follows:

Sales and support	2,194
Product development	1,190
General and administrative	<u>1,085</u>
	4,469

CAI's major competitors, by product area, include the following:

- Systems software: IBM.
- Application software: IBM, Management Science America, and McCormack & Dodge.
- Microcomputer software: Lotus Development, DAC Software, and Peachtree.

Key Products and Services

Approximately 77% of CAI's fiscal 1988 revenue was derived from software product licenses and 23% from maintenance fees. A three-year summary of source of revenue follows:

**COMPUTER ASSOCIATES INTERNATIONAL, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
(\$ millions)**

ITEM	FISCAL YEAR					
	3/88		3/87		3/86	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Product revenue	\$542.7	77%	\$366.0	81%	\$256.9	80%
Maintenance fees	166.4	23%	86.3	19%	65.1	20%
TOTAL	\$709.1	100%	\$452.3	100%	\$322.0	100%

A further breakdown of fiscal 1988 revenue by division is estimated as follows:

Systems Products Division	44%
Applications Products Division	14%
Micro Products Division	8%
International divisions	<u>34%</u>
	100%

CAI currently offers more than 100 software products. The company has over 8,500 mainframe and minicomputer product installations and has sold more than one million copies of its integrated accounting and productivity microcomputer software products.

CAI's software product offerings are summarized in Exhibits B, C, and D.

EXHIBIT B
COMPUTER ASSOCIATES INTERNATIONAL, INC.
SYSTEMS SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	OPERATING SYSTEM
Performance Management		
CA-FASTDASD™	DASD performance tool	MVS/VM
CA-ISS/THREE™	MVS performance analyzer and capacity planning tool	MVS
CA-JARS®	Resource accounting and chargeback system	MVS/VSE/VM
CA-JARS®/CICS	Online monitoring system	MVS/VSE
CA-JARS® DSA Option	DASD space accounting	MVS
CA-JARS® GRO	Graphic reporting for system utilization	MVS
CA-JARS® IDMS* Option	Analyzing and monitoring tools for IDMS	MVS/VSE
CA-JARS®/IMS	Analyzing and monitoring tool for IMS	MVS
CA-JARS®/SMF	SMF management tool	MVS
CA-MAZDAMON™	Network performance monitor	MVS
Automated Data Center Management		
CA-ACTIVATOR	Automated product installation and maintenance	MVS/VSE/VM
CA-UNICENTER®/II	Data center automation system	MVS/VSE/VM
CA-UNIPACK™/APC	Production control automation system	MVS
CA-UNIPACK™/DCA	Data center administration automation system	MVS
CA-UNIPACK™/PMA	Performance measurement & analysis automation system	MVS
CA-UNIPACK™/SCA	Security, control and auditing automation system	MVS
CA-UNIPACK™/SRM	Storage and resources management automation system	MVS
CA-UNISERVICE®	Online service, support and training	MVS/VSE/VM
Data Center Administration		
CA-9™/R+	Hardware reliability analysis system	MVS
CA-NETMAN™	Data center management tool	MVS/VSE/VM
CA-NETMAN™/OLCF	Online customization facility	MVS/VME
Production Control		
CA-7™	MVS scheduling system	MVS
CA-7™/RPT	Report distribution for CA-7	MVS
CA-11™	Rerun/restart system	MVS
CA-ADC2™	Production control system	MVS
CA-DISPATCH™	Report distribution system	MVS
CA-DISPATCH™ GRO	Graphic reporting for report distribution	MVS
CA-DRIVER®	JCL management and enhancement	VSE
CA-EASYPROCLIB™	Procedure library manager	MVS
CA-JCLCHECK™	JCL validation program	MVS
CA-JOBDOC®	Job documentation system	MVS
CA-MANAGER™	Production control system	MVS
CA-OPERA™	Console and message manager	MVS
CA-PRIMA®	SYSOUT manager and production control tool	MVS
CA-PREDICT™	Production dictionary	MVS
CA-RAPS®	CICS printer and spool management	MVS/VSE/VM
CA-SCHEDULER®	Production control system	MVS/VSE/VM
CA-SCHEDULER® GRO	Graphic reporting for production control	MVS
CA-SYSTEM/SCHEDULER™	Scheduling and production control	VSE

(continued)

EXHIBIT B
 (continued)
COMPUTER ASSOCIATES INTERNATIONAL, INC.
SYSTEMS SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	OPERATING SYSTEM
Conversion		
CA-ACCUCHEK™ CA-CONVERTOR® CA-DUO™ CA-TRANSITY™	Programmers' file compare utility VSE to MVS conversion system VSE emulation under MVS Converts non-IBM COBOL to IBM	MVS MVS/VSE MVS MVS
Estimation and Project Planning		
CA-ESTIMACS™ CA-PLANMACS™	Project estimation system Planning tool for CA-ESTIMACS	PC and Compatibles PC and Compatibles
Resource Management		
CA-1™ CA-BLOCKMASTER™ CA-DASDCHECK™ CA-ASM2™ CA-DYNAM@/B CA-DYNAM@/D CA-DYNAM@/DASD CA-DYNAM@/FI CA-DYNAM@/T CA-DYNAM@/TLMS CA-DYNAM@/TLMS GRO CA-SORT® CA-SRAM® CA-SYSTEM/ARCHIVE™ CA-SPACE/MANAGER™ CA-SPPOOLMAN™ CA-TAPE/MANAGER™ CA-UCANDU® CA-VTERM®	MVS tape management Optimizes DASD block sizes DASD analysis tool MVS DASD manager Backup, archive and restore system Disk allocation and control system DASD reporting and data set management File and device independent product Tape/vault management package Tape/vault management package Graphic reporting for tape/vault management IBM-compatible soft merge Sort reentrant access method Complete backup and archive system for VSE Disk and data set management VM spool management facility Automated tape management Data set management system Security and session management	MVS MVS MVS MVS VM VSE MVS VSE VSE/VM MVS MVS MVS/VSE/VM MVS/VSE VSE VSE VM VSE/VM MVS VM
Security and Auditing		
CA-ACF2™ CA-DIRECTOR™ CA-EXAMINE™ CA-TOP SECRET® CA-TOP SECRET® GRO CA-VMANT™	Resource access control system VM directory management and access control Auditing software Resource access control system Graphic reporting for violation reporting VTAM security and session management	MVS/VSE/VM VM MVS MVS/VSE/VM MVS MVS

EXHIBIT C
COMPUTER ASSOCIATES INTERNATIONAL, INC.
APPLICATION SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	COMPATIBLE SYSTEMS
Masterpiece® Financial Management		
CA-ACCOUNTS PAYABLE®	Control and manage cash disbursements	MVS/VSE, S/38, /36, DEC, DG, UNISYS
CA-ACCOUNTS RECEIVABLE®	Customer account tracking and cash-management control	MVS/VSE, S/38, /36, DEC, DG, UNISYS
CA-FIXED ASSETS™	Asset control multiple depreciation rates system	MVS/VSE, S/38, /36, DEC, DG, UNISYS
CA-FUND ACCOUNTING SYSTEM™	Integrated realtime fund control for the not-for-profit community	MVS/VSE, S/38, /36, DEC, DG, UNISYS
CA-GENERAL LEDGER®	Comprehensive financial management and reporting	MVS/VSE
CA-HUMAN RESOURCES™	Personnel data base and data retrieval facilities for user-designed reports	MVS/VSE, S/38, /36, UNISYS, DEC
CA-INVENTORY CONTROL®	Inventory management and reporting	MVS/VSE, DG, DEC
CA-JOB COST®	Cost collection and reporting facility	MVS/VSE, DEC, Prime
CA-ORDER PROCESSING®	Entering, validating and recording sales	MVS/VSE, DEC
CA-PAYROLL/PERSONNEL™	Wages, deductions, paychecks and labor distribution facilities	S/38, /36, DEC, DG, UNISYS
CA-PURCHASING®	Full-cycle purchase order management and control	MVS/VSE, DEC, DG, UNISYS
MASTERPIECE® GRO	Graphics production software with CA-GENERAL LEDGER interface	MVS/DEC
MasterQuery™	Inquiry and reporting system for access to data in Masterpiece applications	MVS/VSE, S/38, /36, DEC
SmartLink™	Host-PC link for Masterpiece GL data	MVS/VSE, S/38, /36, DEC, UNISYS, PC and compatibles
ad-lib*	Inquiry and reporting system for access to Masterpiece and non-Masterpiece files	DEC
PerfectLink™	Host-to-PC link for Masterpiece/ABS products	MVS/VSE
IMAGINE**	Inquiry and reporting system for access to Masterpiece/ABS and non-Masterpiece/ABS files	MVS/VSE
Business Decision		
CA-FINANCIAL PLANNER®	Financial planning, modeling and reporting system	MVS/VSE/VM
CA-FINANCIAL PLANNER®/PC	PC version of mainframe modeler	PC and compatibles
CA-MICROGEM™	Host-PC link for CA-STRATEGEM financial modeling data	MVS/VM, DEC, PC and compatibles
CA-STRATEGEM™	Modeling tools for corporate and financial analysis	MVS/VM, DEC, Prime
CA-SuperCalc™	Mainframe spreadsheet with graphics, data management, data access and word processing	MVS/VM
CA-SuperCalc™/PC	Integrated spreadsheet with graphics and data management	PC and compatibles

(continued)

EXHIBIT C
 (continued)
COMPUTER ASSOCIATES INTERNATIONAL, INC.
APPLICATION SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	COMPATIBLE SYSTEMS
Application Development		
CA-DATAMACS™ CA-DISPLA™ COBOL	Test data generator for batch, IMS, IDMS COBOL graphic subroutine library for programmable graphics applications	MVS/VSE MVS
CA-EARL® CA-EZTEST®/CICS CA-FLEXISCREEN® CA-OPTIMIZER® CA-OPTIMIZER®/II CA-PROMACS™ CA-UNIPACK™/PPS CA-UNIVERSE™/PT	Report writer Online testing and debugging Online screen and applications development COBOL optimization and debugging COBOL optimization and debugging Applications code generator Application development system Application prototyping tool	MVS/VSE/VM MVS/VSE MVS/VSE MVS/VSE/VM MVS MVS/VSE MVS/VSE/VM MVS/VSE
CA-INFOPOINT™ Banking Series		
DEPOSITS MANAGEMENT: Deposits	Processes demand deposit accounts, credit line, home equity, savings	MVS/VSE
Time Investment	Processes time instruments and retirement accounts	MVS/VSE
TRANSACTION MANAGEMENT:		
Asset Card	Debit and asset card processing	MVS/VSE
Cashtran	Large currency transaction reporting	MVS/VSE
Consumer Transaction	ATM transaction and network support	MVS/VSE
Multisort	Bulk filing and fine sorting	MVS/VSE
Paperless Item Processing	ACH item processing	MVS/VSE
Proof Of Deposit Plus	Item capturing and reporting	MVS/VSE
Super MICR	Item capturing and reporting	MVS/VSE
Teller	Monetary transaction control	MVS/VSE
Wire	Funds transfer	MVS/VSE
CUSTOMER MANAGEMENT:		
CIF	Centralizes customer/account data	MVS/VSE
CMI	Control of customer data: marketing	MVS/VSE
LOANS MANAGEMENT:		
Commercial Loans	Commercial loan processing	MVS/VSE
Installment Loans	Consumer loan processing	MVS/VSE
Mortgage Loans	Mortgage loan processing	MVS/VSE
FINANCIAL MANAGEMENT:		
Accounts Payable	Automated accounts payable processing	MVS/VSE
Financial Control	General Ledger and other financial accounting	MVS/VSE
MULTIPLE APPLICATION SUPPORT:		
Combined Interest Reporting	Interest reporting for IRS	MVS/VSE
Combined Statement	Prepares single statement on related accounts	MVS/VSE
Exception Administrator	Online exception processing, including NSF, OD, stops, returned items, etc.	MVS/VSE
IMAGINE**	Ad hoc online and batch query and reporting	MVS/VSE
Perfect Link	Data transfer between micro and mainframe	MVS/VSE, PC and compatibles
Profitability	Accounting analysis/profitability/modeling	MVS/VSE, PC and compatibles

(continued)

EXHIBIT C
 (continued)
COMPUTER ASSOCIATES INTERNATIONAL, INC.
APPLICATION SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	COMPATIBLE SYSTEMS
Project Management		
CA-PLANLINKSTM Expert	PC-to-mainframe link for user with CA-TELLAPLAN system	PC and compatibles
CA-TELLAPLANTM Expert	Project management software with executive quality graphics capabilities	MVS/VM, DEC, Apollo, Sun, HP
CA-TELLAPLANTM Expert/PC	Project and resource management for micros	PC and compatibles
Relational Data Base Management		
CA-UNIVERSETM	Relational data base management system	MVS/VSE
Visual Information		
CA-DISSPLATM	FORTRAN graphics subroutine library for programmable graphics applications	MVS/VM, DEC, UNISYS, DG, HP, Cyber, Cray, Apollo, Honeywell
CA-DISSPLATM/PC	PC component of CA-DISSPLA	Sun, Prime PC and compatibles
CA-GKSTM	Level 2b implementation of the Graphical Kernel Standard shares metafiles with CA-DISSPLA	MVS/VM, DEC, Apollo, Prime, UNISYS, DG, HP, Cyber, Cray, Sun MVS/VM, DEC
CA-GRAFICS CONNECTIONTM	Graphics metafile translator. Imports CGM, HPGL, DISSPOP, GDF. Exports Postscript, CGM and 300+ device-specific files	
SuperImageTM	PC drawing system with symbol libraries and word chart capability. Integrates with SuperChart, communicates with CA-TELLAGRAF and CA-DISSPLA	PC and compatibles
SuperChartTM	PC presentation graphics with spreadsheet access. Integrates with SuperImage, communicates with CA-TELLAGRAF	PC and compatibles
CA-TELLAGRAFTM	End-user graphics for decision-making presentations and performance	MVS/VM, DEC, DG, Sun, Apollo, Prime, CDC, HP, Honeywell
Data Center Resource Management		
CA-ARCHIVERTM	Backup, archive and restore system	DEC
CA-RMS1TM	Job accounting system	UNISYS
CA-RMS3TM	Hardware/equipment tracking system	UNISYS
CA-TMSTM	Tape management system	UNISYS
CA-DB4TM	Relational data base management	UNISYS

EXHIBIT D
COMPUTER ASSOCIATES INTERNATIONAL, INC.
MICROCOMPUTER SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION
Decision Support	
SuperCalc®4 Silverado® Compress Cell Noter™ Snapin Tools™ The Spreadsheet Auditor™	Integrated spreadsheet with graphics and data management Add-In spreadsheet data base for Lotus 1-2-3 and SuperCalc4 Spreadsheet file compression for Lotus 1-2-3 Spreadsheet cell annotation for Lotus 1-2-3 5 worksheet enhancement products for Lotus 1-2-3 Spreadsheet testing, analysis and reporting for Lotus 1-2-3 and SuperCalc4
SuperCalc®4 LanPak™ SuperProject® Expert SuperProject® Expert/2 SuperProject® Plus	Local area Network Manager for Novell, 3Com and IBM Networks Advanced project and resource management Advanced project and resource management for the OS/2 operating system Project and resource management
Accounting ACCPAC® PLUS (PCs and compatibles)	
General Ledger and Financial Reporter Accounts Receivable Accounts Payable	General ledger accounting and report generation Comprehensive receivables management and reporting Payables management, check printing and reconciliation, and distribution of disbursements
Payroll Inventory Control and Analysis Order Entry Job Costing	Payroll computation, recordkeeping, payment and reporting Complete inventory management and reporting
Estimating Retail Invoicing Time Billing & Client Receivables Sales Analysis	Order processing and reporting Cost tracking for any business that operates on a job or project basis Job estimates and bid preparation Point-of-sale automation of the entire retail invoicing process Time accounting, billing, and receivables management for service-oriented businesses Sales management reporting using data from order entry, accounts receivable and retail invoicing
EasyFiler® and Report Writer EasyWriter II® System Manager Windowing System LanPak™ Manager ACCPAC® Access System Manager/2	Custom report writer and file management Word processing, spelling correction, mail merge and line drawing Windowing for ACCPAC Plus modules Local area network manager for Novell, 3Com and IBM Networks Development tool kit for ACCPAC Plus series System manager for OS/2 operating system
ACCPAC BPI® Accounting (PCs and compatibles)	
General Accounting Accounts Receivable Accounts Payable LanPak™ Payroll Inventory Control	General ledger accounting plus financial reporting Receivables management Payables management Local area Network Manager for Novell, 3Com and IBM Networks Comprehensive payroll system Inventory management and reporting

(continued)

EXHIBIT D
 (continued)
COMPUTER ASSOCIATES INTERNATIONAL, INC.
MICROCOMPUTER SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION
ACCPAC® Easy (PCs and compatibles)	
General Accounting	Complete general ledger accounting plus subsidiary ledgers for accounts payable and accounts receivable
Payroll	Comprehensive payroll management
BPI Entry Series (Macintosh)	
General Accounting	Complete general ledger, accounting and financial software

Industry Markets

CAI's products are used by clients in the manufacturing, banking, insurance, retail, and education industries, as well as government agencies. More than 85% of the Fortune 500 largest U.S. industrial corporation use one or more of CAI's mainframe packages.

In the area of data base management systems, graphics, and applications software for the micro, mini, and mainframe computer, the customer base ranges from small business users to Fortune 500 companies.

Revenues from independent distributors accounted for less than 1% of CAI's fiscal 1988 revenue.

Geographic Markets

Approximately 61% of CAI's fiscal 1988 revenue was derived from the U.S. and Canada and 39% from Europe, Australia, and other international sources.

A three-year geographic financial summary follows:

**COMPUTER ASSOCIATES INTERNATIONAL, INC.
THREE-YEAR GEOGRAPHIC FINANCIAL SUMMARY
(\$ millions)**

ITEM	FISCAL YEAR					
	3/88		3/87		3/86	
	\$	PERCENT OF TOTAL	\$	PERCENT OF TOTAL	\$	PERCENT OF TOTAL
Revenue						
• U.S. and Canada (a)	\$429.8	61%	\$289.7	64%	\$227.4	71%
• Other foreign	<u>279.3</u>	<u>39%</u>	<u>162.6</u>	<u>36%</u>	<u>94.6</u>	<u>29%</u>
	\$709.1	100%	\$452.3	100%	\$322.0	100%
Income before taxes						
• U.S. and Canada	\$123.6	73%	\$70.8	75%	\$45.9	82%
• Other foreign	<u>46.5</u>	<u>27%</u>	<u>24.0</u>	<u>25%</u>	<u>10.4</u>	<u>18%</u>
	\$170.1	100%	\$94.8	100%	\$56.3	100%

(a) Includes export sales to unaffiliated customers of approximately \$34.0 million, \$21.4 million, and \$14.2 million for fiscal 1988, 1987, and 1986, respectively.

Royalties from foreign subsidiaries were approximately \$89.1 million, \$37.0 million, and \$24.7 million for fiscal 1988, 1987, and 1986, respectively.

For each of the last two fiscal years, approximately 40% of CAI's revenue from mainframe products was derived from business outside North America. In fiscal 1986, this percentage was approximately 30%.

Western Europe is, by far, the company's most important foreign market.

CAI operates approximately 41 offices throughout the U.S. in addition to its headquarters in Garden City.

CAI operates over 50 foreign office facilities outside the U.S. Principal offices are located in Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Holland, Hong Kong, Israel, Italy, Japan, New Zealand, Norway, Singapore, Spain, Sweden, Switzerland, the U.K., and West Germany.

**Computer
Hardware**

CAI has various computers from IBM, DEC, and Data General installed at centers in Garden City, San Diego, and Rosemont (IL) for internal product development, technical support, and administrative purposes.

FINANCIAL UPDATE TO HIGHLIGHT DATED MARCH 1984*

**COMPUTER ASSOCIATES
INTERNATIONAL, INC.**

Computer Associates Building
125 Jericho Turnpike
Jericho, NY 11753
(516) 333-6700

Charles B. Wang, President
Public Corporation, OTC
Total Employees: 1,247
Total Revenue, Fiscal Year End
3/31/85: \$128,936,487

**COMPUTER ASSOCIATES INTERNATIONAL, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM \ FISCAL YEAR	3/85	3/84	3/83	3/82	3/81
Revenue	\$ 128,936	\$ 84,732	\$ 58,148	\$ 43,178	\$ 30,269
• Percent increase from previous year	52%	46%	35%	43%	69%
Income before taxes	\$ 21,412	\$ 15,135	\$ 9,009	\$ 5,215	\$ 4,443
• Percent increase from previous year	41%	68%	73%	17%	145%
Net income	\$ 13,256	\$ 9,518	\$ 5,647	\$ 3,072	\$ 2,644
• Percent increase from previous year	39%	69%	84%	16%	N/A
Net income per share	\$ 1.21	\$ 0.90	\$ 0.64	\$ 0.38	\$ 0.37
• Percent increase from previous year	34%	41%	68%	3%	147%

- On April 25, 1985, Computer Associates International (CAI) acquired Value Software, Inc. for 128,823 shares of CAI common stock.
 - Value Software develops, markets, and supports systems software products for IBM mainframes. The company generated an estimated \$7 million in revenue in 1984.
 - The acquisition was accounted for as a purchase.

SOURCE OF REVENUE

- One hundred percent of CAI's fiscal 1985 revenue was derived from software products, 86% of which was derived from product revenue and related income and 14% from maintenance fees.

*Replaces Financial Update of September 1984



FINANCIAL UPDATE TO HIGHLIGHT DATED MARCH 1984

**COMPUTER ASSOCIATES
INTERNATIONAL, INC.**

Computer Associates Building
125 Jericho Turnpike
Jericho, NY 11753
(516) 333-6700

Charles B. Wang, President
Public Corporation, OTC
Total Employees: 912
Total Revenue, Fiscal Year End
3/31/84: \$84,731,626

**COMPUTER ASSOCIATES INTERNATIONAL, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	3/84	3/83	3/82	3/81	3/80
Revenue	\$ 84,732	\$ 58,148	\$ 43,178	\$ 30,269	\$ 17,874
• Percent increase from previous year	46%	35%	43%	69%	52%
Income before taxes	\$ 15,135	\$ 9,009	\$ 5,215	\$ 4,443	\$ 1,817
• Percent increase from previous year	68%	73%	17%	145%	59%
Net income	\$ 9,518	\$ 5,647	\$ 3,072	\$ 2,644	N/A
• Percent increase from previous year	69%	84%	16%	N/A	N/A
Net income per share	\$ 0.90	\$ 0.64	\$ 0.38	\$ 0.37	\$ 0.15
• Percent increase from previous year	41%	68%	3%	147%	114%

- Computer Associates International (CAI) has made two acquisitions during 1984, as follows:
 - On May 29, 1984, CAI acquired substantially all of the assets of Sorcim Corporation.
 - The terms of the transaction provided for cash payments of \$17.6 million, payable over a period of five years plus contingent payments up to a maximum of an additional \$8.9 million based on future sales performance over the next four years.
 - Sorcim develops, markets, and supports microcomputer software, including the SuperCalc family of products. For its fiscal years ending July 2, 1984 and July 2, 1983, Sorcim had revenues of approximately \$15 million and \$7 million, respectively.

COMPUTER ASSOCIATES INTERNATIONAL, INC.

- . Sorcim's operations have been combined with those of Information Unlimited Software (acquired by CAI in 1983) to form the Sorcim/IUS division.
- On June 15, 1984, CAI acquired all of the stock of Johnson Systems, Inc., for \$16 million in cash.
 - . Johnson Systems specializes in operations management software packages for data center facilities and had 1983 revenue in excess of \$10 million.

SOURCE OF REVENUE

- One hundred percent of CAI's fiscal 1984 revenue was derived from software products, 85% of which was derived from product revenue and related income, and 15% from maintenance fees.

COMPANY HIGHLIGHT

COMPUTER ASSOCIATES INTERNATIONAL, INC.

Computer Associates Building
125 Jericho Turnpike
Jericho, NY 11753
(516) 333-6700

Charles B. Wang, President
Public Corporation, OTC
Total Employees: 747
Total Revenue, Fiscal Year End
3/31/83: \$58,147,637

THE COMPANY

- Computer Associates International, Inc. (CAI) was incorporated in 1974 and now designs, develops, markets, and supports systems software, data base management, and applications software products for mainframes, minicomputers, and microcomputers.
- On August 31, 1982, CAI acquired Capex Corporation for approximately 2.4 million shares of its stock, valued at \$22.5 million. Capex, headquartered in Phoenix, had calendar 1981 revenue of approximately \$15 million and 250 employees at the time of acquisition. The company, which markets systems and financial applications software running under OS and MVS, has been merged into CAI. The acquisition was accounted for on a pooling of interests basis.
- CAI's fiscal 1983 revenue increased 35% to \$58.1 million from \$43.2 million in 1982. Net income grew 84% to \$5.6 million from \$3.1 million in 1982. A five-year financial summary follows:

COMPUTER ASSOCIATES INTERNATIONAL, INC.

COMPUTER ASSOCIATES INTERNATIONAL, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	3/83	3/82	3/81	3/80	3/79
Revenue	\$ 58,148	\$ 43,178	\$ 30,269	\$ 17,874	\$ 11,740
• Percent increase from previous year	35%	43%	69%	52%	N/A
Income before taxes	\$ 9,009	\$ 5,215	\$ 4,443	\$ 1,817	\$ 1,145
• Percent increase from previous year	73%	17%	145%	59%	N/A
Net income	\$ 5,647	\$ 3,072	\$ 2,644	N/A	N/A
• Percent increase from previous year	84%	16%	N/A		
Net income per share	\$ 0.64	\$ 0.38	\$ 0.37	\$ 0.15	\$ 0.07
• Percent increase from previous year	68%	3%	147%	114%	N/A

- Revenue increases over the past several years are attributed to an increase in the number of packages licensed and to the expansion of operations into new geographic markets. Price increases have not been a material factor in revenue growth.
- The increase in fiscal 1983 net income is primarily due to a decrease in the selling, marketing, and administrative expenses realized after the combination of the business of Capex with the company.
- Research and development expenditures were \$8.6 million in fiscal 1983 as compared to \$6.3 million in 1982, or approximately 15% of revenue for both years.
- Revenue for the nine months ended December 31, 1983 was \$60.5 million, a 44% increase over \$41.9 million the previous year. Net income for the period increased 78% to \$6.7 million.
- In April 1983 CAI declared a two-for-one stock split effective May 10, 1983. CAI's June 1983 stock offering of two million shares generated proceeds of \$57.5 million, to be used as working capital and for possible acquisition of software products or related companies.
- CAI paid \$2.9 million and \$2.3 million in fiscal 1983 and 1982, respectively, for the purchase of software products. In addition, the company issued long-term notes payable, and in 1983, issued 54,292 shares of stock valued at \$1.2 million.

COMPUTER ASSOCIATES INTERNATIONAL, INC.

- Acquisitions made in calendar 1983 include the following:
 - In January 1983 CAI acquired Stuart P. Orr Associates, Inc. of Pasadena (CA) for an undisclosed amount. Stuart P. Orr is a developer of financial applications software packages. Its operations have been merged with CAI's.
 - On June 30, 1983, CAI announced the acquisition of Information Unlimited Software, Inc. (IUS) for \$5 million plus an additional \$5 million to be paid over a three-year period. Headquartered in Sausalito (CA), IUS had fiscal 1983 revenue of about \$5.5 million and approximately 100 employees at the time of acquisition. The company markets business accounting, word processing, and planning/filing microcomputer software packages and now operates as a separate division of CAI under its original name. IUS is expected to contribute an estimated \$7 million to CAI's fiscal 1984 revenue.
- CAI's 13 foreign subsidiaries operate as distributors for its products. Subsidiary offices are located in Austria, Australia, Belgium, Brazil, Canada, France, Germany, Holland, Italy, Japan, Spain, Switzerland, and the United Kingdom.
- As of May 15, 1983, CAI had 747 employees, of which 126 were engaged in product development efforts and 402 in sales and sales support functions. There are currently 900 employees.
- CAI competes with the following companies:
 - Systems software competitors include IBM (sort/merge packages), Syncsort (sorting packages), Tower Systems (file and disk space management), University Computing (file management), Johnson Systems (job accounting), and Cambridge Systems Group (disk space management).
 - Principal competitors in the data base management systems market include IBM, Cullinet Software, Cincom Systems, Software AG, Mathematica, and Applied Data Research.
 - The major competition to CAI's new line of financial applications software comes from Management Science America (MSA).
 - Competitors of CAI's IUS microcomputer software division include MSA's Peachtree Software subsidiary and MicroPro.

KEY PRODUCTS AND SERVICES

- One hundred percent of CAI's fiscal 1983 revenue was derived from software products, 81% of which was from product revenue and related income, and 19% from maintenance fees.

COMPUTER ASSOCIATES INTERNATIONAL, INC.

- CAI markets over 30 systems software packages. Over 29,000 packages have been installed for use by 15,000 clients. The products run on IBM 360, 370, 303X, 4300, and compatible mainframes under DOS, DOS/VSE, OS, OS/MVS, CMS, VM, and MVS (also MVS/XA for all OS products). A listing of packages is presented in Exhibit A.
- The company's primary systems software products include CA-DYNAM/T, CA-DYNAM/D, CA-OPTIMIZER, and CA-SORT. These products represent approximately 62% of CAI's installed base and accounted for approximately 66% of revenue for each of the last three fiscal years.
 - CA-DYNAM/T is a tape library management product that tracks current and obsolete tapes.
 - CA-DYNAM/D is a disk storage management product that allocates disk storage capacity among several programs that are being executed in a dynamic manner.
 - CA-OPTIMIZER, previously Capex's top-selling product, is designed to optimize the performance of applications programs written in COBOL.
 - CA-SORT sorts data records into desired sequences.
- CAI introduced several new systems software products in 1983.
 - CA-UNIVERSE, introduced in April 1983, is a relational data base management system written in the C language and transportable across various vendors' hardware. It runs on IBM mainframes under DOS (VSE), OS (MVS), CMS, and VM. Plans include modifying the system to run on other mainframes, minicomputers, and microcomputers. CAI's DBMS sales for the first nine months of calendar 1983 were approximately \$3 million.
 - CA-SENTINEL, introduced in June 1983, is a security package for both on-line and batch processing at DOS/VSE sites. The product generated \$1 million in revenue during the June through December 1983 six-month period.
 - The CA-DYNAM/CMS tape management family was introduced in June 1983. The products consist of a VM/CMS version of CAI's CA-DYNAM/T tape management system and CA-DYNAM/B, a flexible backup and restore facility for the VM/CMS environment.
 - CA-JASPER/XMF (Extended Measurement Facility), introduced in November 1983, provides OS-like performance and tuning capabilities for DOS/VSE users.
 - CA-FLEXISCREEN, introduced in December 1983, is a menu-driven CICS application development system designed for on-line query and update functions by end users.

COMPUTER ASSOCIATES INTERNATIONAL, INC.

EXHIBIT A

COMPUTER ASSOCIATES
SYSTEMS SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	NUMBER INSTALLED	PRICE RANGE	OPERATING SYSTEM(S)
CA-SORT	Sorting System	6,500	\$ 3,500-10,500	(All Products Run on IBM 360, 370, 303X, 4300, and Compatible Mainframes) OS/MVS, DOS/VS(E), VM/CMS
CA-SRAM	Sort Reentrant Access Method	3,000	\$ 4,500- 6,500	OS/MVS, DOS/VS(E)
CA-DART	Report Generator Attached to CA-SORT or Compatible Sort	200	\$ 5,000- 8,500	OS/MVS, DOS/VS(E)
CA-SORT SYSTEM	Includes CA-SORT, CA-SRAM, and CA-DART Installations	9,542	\$ 8,000-12,500	OS/MVS, DOS/VS(E), VM/CMS.
CA-RAPS	Provides CICS/VS(E) Remote Users with Access to DOS/VS(E) Power Query Files	680	\$ 4,250- 6,250	DOS/VS(E)
CA-DYNAM/D	Disk Space Management System	1,800	\$ 7,500-11,500	DOS, DOS/VS(E), VM/CMS
CA-DYNAM/CMS	Backup and Restore Facility, Includes CA-DYNAM/B and CA-DYNAM/T	New	\$ 7,000	VM/CMS, VM/370, VM/SP
CA-DYNAM/T	Tape Library Control System	3,100	\$ 9,000-16,000	DOS/VS(E), OS/MVS
CA-DYNAM/FI	File Independence Facility	1,037	\$ 3,800- 5,800	DOS/VS(E)
CA-DYNAM INTEGRATED MANAGEMENT SYSTEM	Includes CA-DYNAM/D, CA-DYNAM/T, and CA-DYNAM/FI Installations	7,800	\$19,000-22,000	DOS/VS(E)
CA-DYNAM/TLMS	Tape Management and Security	550	\$15,000	OS/VSI, MVS
CA-DYNAM/DASD	DASD Data Set Management	100	\$ 9,000-12,000	OS/VSI, MVS
CA-JASPER/JA	Job Accounting and Billing System	750	\$ 6,000- 9,000	OS/MVS
CA-JASPER/CICS	On-Line Performance Monitor	563	\$ 6,500- 8,500	DOS/VS(E), OS/MVS
CA-JASPER/IMS	IMS Performance Monitor	100	\$12,000	OS
CA-JASPER/PPA	Program Performance Monitor	50	\$ 2,500	DOS

Continued

COMPUTER ASSOCIATES INTERNATIONAL, INC.

EXHIBIT A (Cont.)

COMPUTER ASSOCIATES
SYSTEMS SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	NUMBER INSTALLED	PRICE RANGE	OPERATING SYSTEM(S)
CA-JASPER/XMF	Extended Measurement Facility	638	\$ 6,000- 13,000	DOS/VS(E), OS
CA-JASPER RESOURCE MANAGEMENT SYSTEM	Includes CA-JASPER/JA, CA-JASPER/CICS, CA-JASPER/IMS, and CA-JASPER/XMF	N/A	\$ 17,000- 21,000	OS/MVS
CA-JASPER PERFORMANCE MEASUREMENT SYSTEM	Includes CA-JASPER/JA, CA-JASPER/PPA, CA-JASPER/CICS, and CA-JASPER/XMF	3,350	\$ 17,000- 20,000	DOS/VS(E)
CA-DRIVER	Job Management and Control System	605	\$ 6,500- 8,500	OS/MVS, DOS/VS(E)
CA-SCHEDULER	Scheduling and Operations Management	320	\$ 15,000- 36,000	DOS, OS
CA-JOBDOC	Job-Related Information Creation, Maintenance, and Retrieval System	78	\$ 9,500	OS
CA-EARL	Report Generator	731	\$ 9,000- 16,750	VM/CMS, DOS/VS(E), OS
CA-OPTIMIZER	Program/Programmer Optimization/Productivity Tool	1,943	\$ 17,500- 27,500	OS, DOS
CA-EZTEST SYSTEM (Includes CA-EZTEST/CICS, CA-EZTEST/ISB, CA-EZTEST/CMS)	Testing and Debugging Aid	192	\$ 13,500- 19,500	OS, DOS, VM/CMS
CA-UNIVERSE	Relational DBMS	50	\$110,000-140,000	DOS, OS, VM, CMS, DOS/VS(E), OS/MVS
CA-SENTINEL	Data Security Package	75	\$ 12,000- 15,000	DOS/VS(E)
CA-VIEW	Display and Management System for CMS Query Files	N/A	\$ 3,000- 4,500	VM/CMS
CA-VTERM	Provides Up to Nine Virtual Terminals Active from One Physical Terminal	264	\$ 3,000- 4,500	VM/CMS
CA-FLEXISCREEN	CICS Application Development System	New	\$ 17,500- 23,000	OS, DOS

COMPUTER ASSOCIATES INTERNATIONAL, INC.

- CAI applications software products, excluding those marketed by its IUS division, include the following:
 - CAI markets financial and distribution management applications software, as presented in Exhibit B. The company's ADVANCED BUSINESS SOFTWARE, introduced in April 1983, consists of two series of integrated on-line packages that run on IBM and compatible mainframes and Data General ECLIPSE computers. Both series are being integrated with CAI's CA-UNIVERSE data base management system.
 - The Financial Management Software Series includes products for general ledger, accounts payable, customized financial reporting, asset management, human resources, payroll administration, and budgeting, forecasting, and modeling.
 - The majority of the packages were developed by Stuart P. Orr Associates, a recent CAI acquisition, and converted to run on IBM mainframes as well as the originally developed Data General ECLIPSE environment.
 - CA-AUTOTAB, the financial forecasting and modeling system, was acquired along with Capex and has been renamed CA-FINANCIAL PLANNER.
 - The products are also being developed for use on mini-computers and microcomputers from DEC and IBM.
 - The Distribution Management Software Series, which is fully integrated with the Financial Management packages, is based on software acquired from American Computer Sciences in March 1982. Packages include inventory control, order entry, sales analysis, and accounts payable and receivable for clients in the wholesale distribution industry.
 - CA-LAWFIRM, introduced in August 1983, is a law firm management and client accounting package designed to run on the IBM System/34 or System/36 or on the IBM PC in a network environment. A standalone microcomputer version for smaller law firms is being developed.
 - Functions include time and disbursement accounting, billing, and accounts receivable.
 - The system is part of a new family of law firm products, including conflict-of-interest, docketing, and diary packages, as well as specialized packages for tax, real estate, estates and trusts, and patents and trademarks.
 - In January 1984 CAI announced CA-EXECUTIVE, a package of integrated software for IBM PC, PC/XT, and compatible microcomputers running under PC DOS. The package includes an intelligent micro-to-

EXHIBIT B
COMPUTER ASSOCIATES
APPLICATIONS SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	PRICE RANGE	NUMBER INSTALLED	CPU REQUIREMENTS (OPERATING SYSTEM)
ADVANCED BUSINESS SOFTWARE (Financial, Distribution, and Administrative Management)				
• CA – GENERAL LEDGER	Complete Accounting and Budgeting System	\$15,000-52,000	99	IBM and Compatible Mainframes (DOS, OS, VM/CMS) and Data General ECLIPSE (AOS, AOS/VS, RDOS)
• CA – ACCOUNTS PAYABLE	Complete Open Items Payable System	\$ 9,500-30,000	91	
• CA – ACCOUNTS RECEIVABLE	Accounts Receivable System	\$ 8,000-30,000	78	
• CA – FINANCIAL PLANNER (Formerly CA – AUTOTAB)	Financial Planning and Modeling System	\$25,000	1,500	(Also Runs Under OS, DOS, and DOS/VSE and on HP Computers)
• CA – ASSET MANAGEMENT	Fixed Assets Management System	\$ 6,000-30,000	New	
• CA – PERSONNEL MANAGEMENT	Personnel Information and Payroll System	\$ 9,000-19,500	New	
• CA – INVENTORY CONTROL	Multiple Warehouse Inventory Control System	\$ 8,000-35,000	New	
• CA – ORDER PROCESSING	Order Processing Management System Providing Credit Management, Sales Analysis, Shipping, and Back Ordering	\$ 8,000-35,000	New	
• CA – PURCHASING	Purchasing System Used to Maintain Optimum Inventory Levels	\$ 6,000-19,500	New	
• CA – JOB COST	Job Cost Tracking System	\$ 6,000-19,500	New	
CA – LAWFIRM	Law Firm Management and Client Accounting Package	\$35,000	New	IBM System/34, 36
CA – EXECUTIVE	Includes Micro-to-Mainframe Link (CA-LINK), Window Manager, Spreadsheet (CA-Calc), Word Processing (CA-Writer), Editing (CA-Edit), Graphics (CA-Graph), Forms Generation (CA-Form), On-Line Tutorial (CA-Tutor), and DBMS (CA-DBMS)	\$ 1,295	New	IBM PC, PC/XT, and Compatible Microcomputers (PC DOS)

COMPUTER ASSOCIATES INTERNATIONAL, INC.

mainframe link (CA-LINK) and programs including spreadsheet (CA-Calc), word processing (CA-Writer), editing (CA-Edit), graphics (CA-Graph), forms generation (CA-Form), on-line tutorial (CA-Tutor), and a relational microcomputer DBMS (CA-DBMS). The system is tied together with a window manager for concurrent processing.

- CA-DBMS is based on Micro Data Base Systems, Inc.'s Knowledgebase source code, which CAI acquired in mid-1983. Micro Data Base is located in Indiana.
- CA-EXECUTIVE can be integrated with CA-UNIVERSE and is scheduled for introduction in April 1984, priced at \$1,295. Substantial volume discounts will be available. The product is sold only as a complete package.
- CAI entered the microcomputer applications software market as a result of its June 1983 acquisition of Information Unlimited Software (IUS). IUS has sold over 160,000 packages, which are organized into two software series, as shown in Exhibit C.
 - The IUS Productivity Software Series includes EasyWriter, EasyFiler, EasyPlanner, EasySpeller, and EasyMailer. These packages encompass word processing, DBMS, spreadsheet, mail/merge, and spelling-checker applications.
 - The IUS Financial Management Series consists of six subsystems, including General Ledger and Financial Reporter, Accounts Receivable, Accounts Payable, Order Entry, Inventory Control and Analysis, and Payroll.
- As of June 1983, approximately 56% of CAI's installed software package base consisted of perpetual licenses and 44% of fixed-term licenses.
 - One year of maintenance is included in the perpetual license. Subsequent annual maintenance fees range from 12% to 13% of the then-prevailing perpetual license fee.
 - Fixed-term licenses range from one to three years, with maintenance included.
- Products are technically supported initially by the field systems engineers. In addition, CAI maintains customer support centers in each of its regional offices in the U.S. and in most of the foreign countries where the company has subsidiaries. These centers provide technical support by telephone.

INDUSTRY MARKETS

- CAI's fiscal 1983 revenue was derived from across industry sectors, primarily from manufacturers, banks, insurance companies, retailers, educational institutions, and government agencies.

EXHIBIT C

INFORMATION UNLIMITED SOFTWARE, INC.
MICROCOMPUTER SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	AVERAGE PRICE	NUMBER INSTALLED	CPU REQUIREMENTS (OPERATING SYSTEM)
PRODUCTIVITY SERIES				
EasyWriter II	Word Processing	\$300	103,500	All Systems Run on the IBM PC, TI Professional Computer, and COMPAQ Portable Computer Under MS-DOS.
EasyFiler	Flexible Data Base Manager	\$360	8,340	
EasyPlanner	Programmable Spreadsheet	\$250	4,200	
EasySpeller II	Spelling Checker for Use With EasyWriter II	\$225	21,500	
EasyMailer	Mail/Merge Program	\$195	10,400	
FINANCIAL MANAGEMENT SERIES				
General Ledger and Financial Reporter	Financial Recordkeeping and Reporting System	\$595	16,900 Total	
Accounts Receivable	Complete Invoice, Payment Information, and Customer Statistics System	\$595		
Accounts Payable	Payables System	\$595		
Inventory Control and Analysis	Inventory, Purchase Order, and Sales Reporting System	\$595		
Order Entry	Invoice and Packing List Printing System	\$595		
Payroll	Complete Payroll System	New		

COMPUTER ASSOCIATES INTERNATIONAL, INC.

- Approximately 75% of the 1983 Fortune 500 companies use one or more CAI products.

GEOGRAPHIC MARKETS

- Approximately 60% of CAI's fiscal 1983 revenue was derived from the U.S. and 40% from clients in approximately 50 foreign countries.
- The company's marketing operations in the U.S. are organized into 12 regional offices located in Atlanta, Boston, Chicago, Dallas, Houston, Los Angeles, Phoenix, St. Louis, San Francisco, Cleveland, New York (Jericho), and Washington, D.C.
- International marketing is conducted through 22 offices in 13 foreign countries.
- Products are also marketed through independent distributors in the Scandinavian countries, South Africa, South America, the Philippines, and Israel. Sales from this source accounted for less than 4% of total 1983 revenue.

COMPUTER HARDWARE AND SOFTWARE

- CAI maintains the following equipment:
 - One IBM 3083 and three IBM 4341s at Jericho headquarters.
 - An IBM 4331 is maintained in each of the following locations: Texas, Germany, France, and Italy.
 - One Magnuson M/80 is located in England.
- The primary operating system used is VM/SP. Other operating systems used include MVS/XA, MVS/SP, DOS/VSE, and VSI.



COMPANY HIGHLIGHT

**COMPUTER ASSOCIATES
INTERNATIONAL, INC.**
Computer Associates Building
125 Jericho Turnpike
Jericho, NY 11753
(516) 333-6700

Charles B. Wang, President
Public Corporation, NASDAQ
Total Employees: 327
Total Revenue, Fiscal Year End
3/31/81: \$18,456,473

THE COMPANY

- Computer Associates International, Inc. (CA) was incorporated in Delaware in 1974 and commenced business in June 1976. From June 1976 to April 30, 1980 the company operated primarily as a marketing organization in the United States for the software products of Computer Associates International Ltd. (CAI Limited), a Swiss company, and performed product development work. On April 30, 1980, CA acquired substantially all of the assets of CAI Limited, including subsidiaries, and the products previously marketed by CA in the United States on behalf of CAI Limited. The company now designs, develops, markets and supports over 20 systems software products.
- CA issued a preliminary prospectus, dated October 30, 1981, for a public offering of 500,000 shares of common stock. Prior to this offering, there has been no public market for the common stock of the company. Proceeds from the sale will be used to provide working capital and capital for possible acquisitions. Initially, a portion of the proceeds will be used to repay short-term bank indebtedness.
- Revenues for fiscal 1981 increased 110% to \$18,456,000. Pretax margins were 12.5% versus 1.9% in 1980.

COMPUTER ASSOCIATES INTERNATIONAL, INC.

FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR	3/81	3/80	3/79	3/78	3/77
Revenues		\$18,456	\$ 8,806	\$ 6,066	\$ 3,219	\$ 1,242
• Percent increase from previous year		110%	45%	88%	159%	N/A
Income before taxes and extraordinary item		\$ 2,306	\$ 169	\$ 38	\$ 145	\$ 5
• Percent increase (decrease) from previous year		1264%	345%	(74%)	2800%	N/A
Net income		\$ 1,396	\$ 141	\$ 38	-	-
• Percent increase (decrease) from previous year		890%	271%	N/A	N/A	N/A
Earnings per share		\$.54	\$.08	\$.01	\$.03	-
• Percent increase (decrease) from previous year		575%	700%	(66%)	N/A	N/A

- For its fiscal year end, March 31, 1981, the company incurred product development costs of \$3,077,683 or 16.7% of revenue. For fiscal 1979 and 1980, these costs were \$682,334 and \$1,231,234, respectively, or approximately 11% and 14%, respectively, of revenue.

KEY PRODUCTS AND SERVICES

- Software product sales represent 100% of CA's revenues. CA offers system software products (primarily utilities) for IBM 360/370/303X/43XX machines. License agreements are in effect for over 13,000 CA packages.
- The primary products of the company, CA-DYNAM/T, CA-SORT and CA-DYNAM/D, represent approximately 75% of the company's packages installed, and accounted for about 70% of revenue for each of the last two years.
- A listing of products is provided in the exhibit.
- Products are technically supported initially by the field systems engineers. In addition, CA maintains customer support centers in each of its regional offices in the United States and in most of the foreign countries where the company has subsidiaries. These centers provide technical support by telephone.
- CA's products are normally installed on a 30-day trial basis and are subject to customer acceptance during this period.

COMPUTER ASSOCIATES INTERNATIONAL, INC.

EXHIBIT
SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	NUMBER INSTALLED	PRICE RANGE	OPERATING SYSTEMS(S)
CA-SORT	Sorting System Which Replaces IBM's Sort/Merge	4,700	\$ 3,500-10,500	OS/MVS, DOS/VS(E), VM/CMS
CA-SRAM	Sort System Offering New Design Facilities and Storage Improvement	2,900	\$ 4,500- 6,500	OS/MVS, DOS/VS(E)
CA-DART	Report Generator Attached to CA-SORT or Compatible Sort	200	\$ 5,000- 8,500	OS/MVS, DOS/VS(E)
CA-SORT COMPLETE	Includes CA-SORT, CA-SRAM, CA-DART	—	\$ 8,000-12,500	OS/MVS, DOS/VS(E)
CA-DYNAM/D	Disk Space, Catalogue Management System for Improved Security and Control	1,600	\$ 9,000-11,500	DOS, DOS/VS(E)
CA-DYNAM/T	Tape Library Control System	2,000	\$ 9,000-16,000	DOS/VS(E), OS/MVS
CA-DYNAM/FI	Provides File Independence	530	\$ 3,800- 5,800	DOS/VS(E)
CA-DYNAM/DMF	Controls DASD Space and Data Set Management	50	\$ 8,500-10,500	OS/MVS
CA-DYNAM INTEGRATED MANAGEMENT SYSTEM	Includes CA-DYNAM/D, CA-DYNAM/T, CA-DYNAM/FI	—	\$19,000-22,000	DOS/VS(E)
CA-DYNAM FILE MANAGEMENT SYSTEM	Includes CA-DYNAM/DMF, CA-DYNAM/T	—	\$ 6,500- 8,500	OS/MVS
CA-JASPER/JA	Job Accounting and Billing System	710	\$ 6,430- 9,000	DOS/VS(E), OS/MVS
CA-JASPER/RT	Real-time Performance Monitor	52	\$ 7,000- 9,000	DOS/VS(E)
CA-JASPER/CICS	For Collection, Reporting of Data Describing Transaction Activity and Consumption	New	\$ 6,500- 8,500	DOS/VS(E), OS/MVS
CA-JASPER PERFORMANCE MEASUREMENT SYSTEM	Includes CA-JASPER/JA, CA-JASPER/RT, CA-JASPER/CICS	—	\$18,000-20,000	DOS/VS(E)

Continued

COMPUTER ASSOCIATES INTERNATIONAL, INC.

EXHIBIT (Cont.)

SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	NUMBER INSTALLED	PRICE RANGE	OPERATING SYSTEM(S)
CA-JASPER RESOURCE MANAGEMENT SYSTEM	Includes CA-JASPER/JA, CA-JASPER/CICS	—	\$10,500-12,500	OS/MVS
CA-DRIVER	Job Management and Control System	100	\$ 6,500- 8,500	OS/MVS, DOS/VS(E)
CA-EARL	Report Program Language	500	\$12,000-16,750	VM/CMS, DOS/VS(E),
CA-QUICKTROL	Project Control and Billing System	New	\$26,000-28,000	OS/MVS
SOLVE	Interactive Testing and Debugging System at Source Level	New	\$ 5,500- 7,500	DOS/VS(E)
RAPS	Provides CICS/VS(E) Remote Users with Access to DOS/VS(E) Power Query Files	120	\$ 4,250- 6,250	DOS/VS(E)
V-CKD	Supports Direct Access Method in DP Installations Using 3310 or 3370 FBA Devices	New	\$ 4,250- 6,250	DOS/VS(G)
DATA-GO	Test Data Generation Facility	17	\$ 3,000- 4,000	DOS/VS(E)
IMPROVE/MON IMPROVE/CICS	Collects, Reports Statistics of Resource Usage and Operating Characteristics	New	\$ 3,000- 8,000	DOS/VS(E)
CA-VIEW	Display and Management System for CMS Query Files	New	\$ 3,000- 4,500	VM/CMS
CA-VTERM	Provides Up to Nine Virtual Terminals Active from One Physical Terminal	New	\$ 3,000- 4,500	VM/CMS
CA-SYMBUG/C	Symbolic Debugging Aid for COBOL	37	\$12,500-14,500	VM/CMS
CA-CDOS	Provides Interactive DOS/VSE Program Development Under CMS	New	\$20,000-22,000	VM/CMS

COMPUTER ASSOCIATES INTERNATIONAL, INC.

INDUSTRY MARKETS

- Revenue is distributed by industry in proportion to the installed population of IBM System 360/370/303X/43XX CPUs.
- CA's customers include manufacturers, banks, insurance companies, retailers, educational institutions, and government agencies.

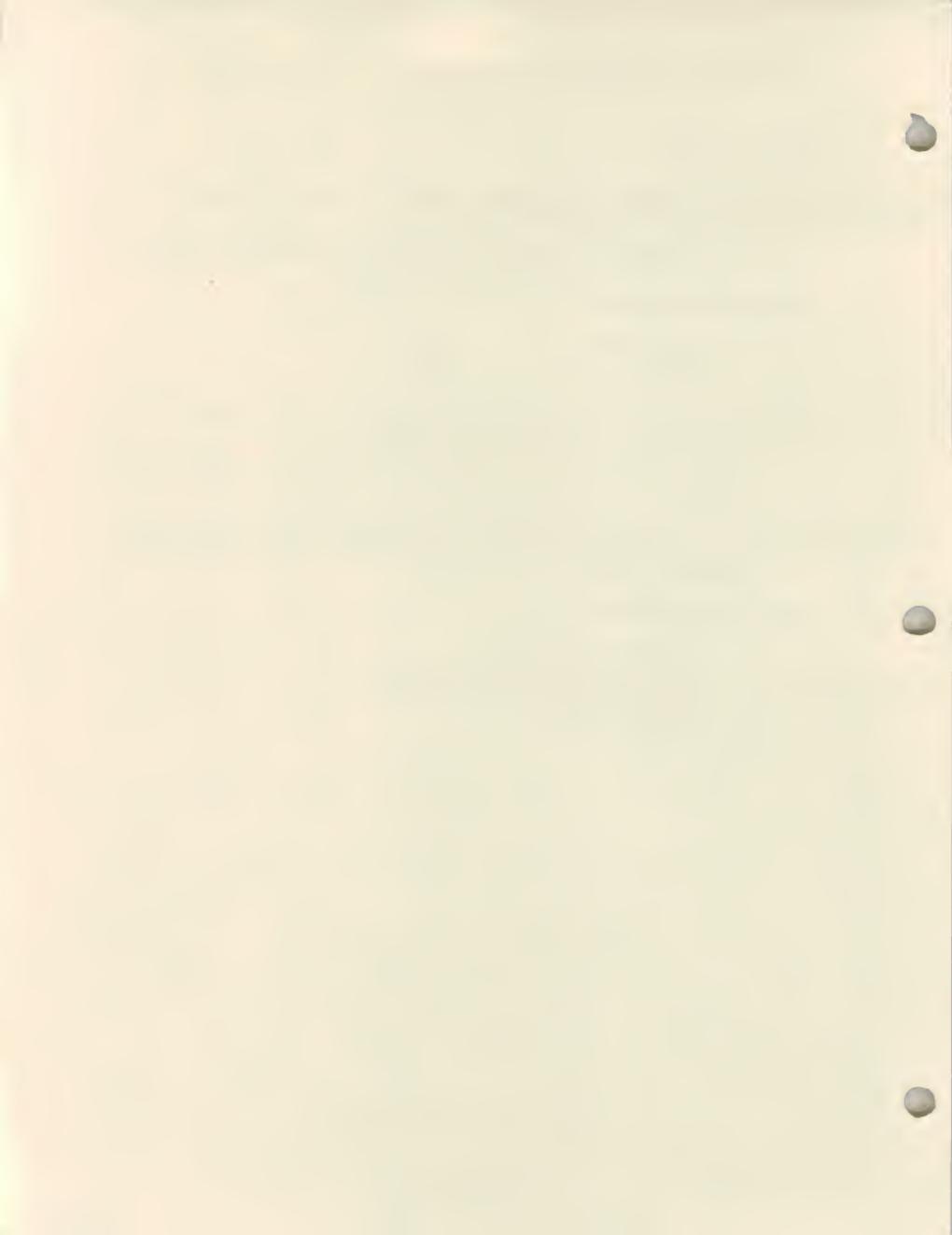
GEOGRAPHIC MARKETS

-	United States	50%
-	Europe	40%
-	Other International	10%

- U.S. regional offices are located in Atlanta, Chicago, Dallas, Jericho, and San Francisco. A marketing office is in Los Angeles.
- Foreign offices are located in Australia, Austria, Belgium, Canada, England, France, Germany, Holland, Italy, Spain, and Switzerland.
- CA's products are also marketed through independent distributors in Scandinavian countries, South Africa, Central America, Mexico, Singapore, the Phillipines and Israel.

COMPUTER HARDWARE

- | IBM 4341 (New York).
- | IBM 370/148 (New York).
- | Magnuson M80 (Maidenhead, England).
- | IBM 4331 (Germany).
- | IBM 4331 (France).



COMPANY HIGHLIGHT

COMPUTER ASSOCIATES
655 Madison Avenue
New York, NY 10021
(212) 355-3333

Charles B. Wang, President
Private
Total employees: 110
Total revenues fiscal year end
3/31/78: \$8,500,000*

THE COMPANY

- Computer Associates (CA) originated in Europe when it entered the software products market there during 1971. It formed a Delaware subsidiary in 1974 but actually started selling software products in the U.S. during 1976.
- Revenues for fiscal 1979 are expected to range between \$12 and \$14 million.
 - This is roughly a 50% increase over the fiscal 1978 range of \$7 million to \$10 million.
 - Management states that CA is extremely profitable.
- About 60 of CA's 110 employees are located in the U.S., 50 are in Europe. Employees worldwide are distributed as follows:

Marketing/sales	35%
Software services and customer support (includes technical employees)	35
Computer operations	10
General and administrative	<u>20</u>
	100%

KEY PRODUCTS AND SERVICES

- One hundred percent of CA revenues are derived from software products with more than 3,500 users. All are systems software packages and are outlined in Exhibit I.

*INPUT estimate

COMPANY HIGHLIGHT/COMPUTER ASSOCIATES

EXHIBIT I
SOFTWARE PRODUCTS OFFERED BY CA

<u>Product Name</u>	<u>Application</u>	<u>No. Installed</u>	<u>% of 1978 Rev.</u>	<u>RCS Vendors Offering Package</u>	<u>Purchase Price Range</u>
CA-SORT	A sorting system which replaces IBM's sort/merge on IBM 360 and 370 series CPUs	3,500	40%	-	\$4K-8K
CA-DYNAM/D	A disk space and catalog management system for IBM System/360 and 370 series CPUs running under DOS or DOS/VS	350	20%	-	\$6K-9K
CA-DYNAM/T	A tape library control system. Protects tape files from erroneous deletion of data. Runs on IBM 360 and 370 mainframes under DOS or DOS/VS	250	15%	-	\$5K-7K
CA-EARL	File select and report system	200	10%	-	\$7K-12K
CA-IDOS/VS	An interactive DOS system for CMS under VM/370	25		Tymshare Informatics Itel Insco	\$10K-20K
CA-SYMBUG	A symbolic debugging aid for COBOL, FORTRAN, and ASSEMBLER languages	12		-	\$6K-15K
CA-VM/ISAM	Provides ISAM support under CMS	12	15%	Boeing Computer Services Informatics Tymshare Insco Itel Grumman CallData	\$7.5K
CA-VSORT	An OS sorting for CMS	12 — 4,361	— 100%	Itel Informatics Insco Grumman CallData	\$7K

COMPANY HIGHLIGHT/COMPUTER ASSOCIATES

- CA offers 15 day trial use of its products to prospective users and price discounts as follows:
 - 10% off per site for the 2nd through 4th installation sites.
 - 25% off per site for the 5th and subsequent installation sites.

APPLICATIONS Software products are utility systems software.

INDUSTRY MARKETS Revenues are distributed by industry in proportion to the installed population of IBM System/360 and IBM System/370 CPUs.

GEOGRAPHIC MARKETS

- Sixty-five percent of CA's revenues are derived from Europe and 35% from the U.S. The European market has grown steadily since 1971. Management states the U.S. market is now eight times larger than when it first began in 1976.
- U.S. branch offices are located in the following cities:
 - Atlanta, GA
 - Chicago, IL
 - Cleveland, OH
 - Dallas, TX
 - Danbury, CT
 - Detroit, MI
 - Los Angeles, CA
 - St. Louis, MO
 - San Francisco, CA
 - Washington, DC
- European offices are located in these cities:
 - Benelux countries:
 - Brussels
 - Rotterdam
 - Worden
 - England:
 - Maidenhead (London)
 - Manchester

COMPANY HIGHLIGHT/COMPUTER ASSOCIATES

- Germany:
 - . Cologne
 - . Darmstadt
 - . Hamburg
 - . Munich
- Switzerland:
 - . Geneva
 - . Zurich

COMPUTER HARDWARE AND SOFTWARE CA uses one IBM System/370 Model 135 running under VM/370 for in-house testing and administrative applications only.

COMPANY BRIEF

Cross Industry: Accounting

Computer Cognition
6696 Mesa Ridge Road
San Diego, CA 92121
(619) 453-6660

CEO: Mark Underwood, President
Private Company
Founded: 1978

Employees: 24 (11/86)
Revenue (FYE 2/28/86): \$1,000,000; **(FYE 2/28/87):** \$1,300,000*

The Company: Computer Cognition provides a series of 18 portable software systems under the name "ACUITY" for accounting, manufacturing, and distribution applications. In June 1986 the company released its first systems software product, AcuCobol, a COBOL compiler.

Sources of Revenue:

- FYE 2/28/86: Application Software (100%)
- FYE 2/28/87: Application Software (85%)*
 Systems Software (15%)*

Key Products:

- Application Software (Utilizes Xenix, Ultrix, UNIX, VOS (Harris), VMS (Digital VAX), and other UNIX look-alike operating systems)
 - ACUITY™ integrated modules, which may be purchased individually or in combination, include the following:
 - Accounts Payable
 - Accounts Receivable
 - Bill of Material Processor
 - Customer Order Processing
 - Fixed Assets
 - General Ledger
 - Labor/ODC Projections
 - Material Requirements Planning
 - Master Scheduling
 - Project Management
 - Purchase Order and Receiving
 - Payroll
 - Project Scheduling
 - Work Breakdown Structure
 - Report Writer
 - Production Control
 - Commitments

*Company estimate

December 1986

- System Software Products (Utilizes UNIX, Zenix, or UNIX look-alike systems)
 - AcuCobol - COBOL compiler

Target Industries:

- Cross industry

Geographic Markets:

- U.S. (90%)
- Canada and Mexico (10%)
- Sales Office: San Diego (CA)

December 1986

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INPUT

COMPANY PROFILE

THE COMPUTER COMPANY
1905 Westmoreland Street
Richmond, VA 23230
(804) 254-2200

Hubert D. Register, President
Subsidiary of Blue Cross and Blue
Shield of Virginia
Total Employees: 862
Total Revenue, Nine-Month Period
End 12/31/84: \$27,320,590

THE COMPANY

- The Computer Company (TCC) was formed in 1968 by seven ex-IBM employees to provide facilities management and processing services. In April 1983 TCC was acquired by Blue Cross and Blue Shield of Virginia and now operates as a wholly owned subsidiary. TCC provides Medicaid claims processing, professional services, and various other processing services.
- TCC's annual growth rate for the last five years has averaged 20%. A five-year revenue summary follows:

THE COMPUTER COMPANY
FIVE-YEAR REVENUE SUMMARY
($\$$ thousands)

ITEM \ FISCAL YEAR	12/84 (a)	3/84	3/83	3/82	3/81
Revenue	\$27,321	\$31,217	\$32,325	\$30,371	\$20,200
• Percent increase (decrease) from previous year	N/A	(3%)	6%	50%	47%

- (a) In 1984 TCC changed its fiscal year to coincide with the calendar year for financial accounting and tax purposes. As a result, the most current revenue figure reflects a nine month period.
- TCC's management attributes recent revenue declines to the loss of its Louisiana and North Carolina Medicaid contracts.
 - TCC's growth rate is expected to increase due to the award of three major contracts—Georgia and Tennessee Medicaid Fiscal Agent contracts and the Pennsylvania Pharmaceutical Assistance Contract for the Elderly (PACE).

THE COMPUTER COMPANY

- TCC is organized into two divisions as follows:
 - The Social Services Division provides claims processing services and accounted for \$21.7 million or 80% of 1984 revenue.
 - The Commercial Division consists of four departments: Interactive Data Base Systems (IDS), Micromedia, Information Services Division (IND), and Library Services. The Commercial Division contributed \$5.6 million or 20% of 1984 revenue.
- As of December 31, 1984, TCC employed 862 people, segmented as follows:

Management	67
Marketing/sales	11
Operations	61
Data entry	270
Clerical	246
Systems and programming	120
Other	87
	862

- As of June 30, 1985, TCC had 942 full-time employees.
- TCC's competition for Medicaid claims processing services comes from Electronic Data Systems-Federal (EDS-F), Computer Sciences Corporation, and System Development Corporation (Burroughs).

KEY PRODUCTS AND SERVICES

- Eighty percent of TCC's total revenue is derived from claims processing services, software licensing agreements, and development contracts managed by the Social Services Division (Medicaid).
 - The following Medicaid contracts are currently held by TCC:
 - Delaware - fiscal agent.
 - Pennsylvania - operations support.
 - District of Columbia - fiscal agent.
 - Virginia - fiscal agent.
 - West Virginia - claims processing.
 - Georgia - fiscal agent.
 - Tennessee - fiscal agent.
 - The following prescription drug contract is held by TCC:
 - Pennsylvania Pharmaceutical Assistance Contract for the Elderly (PACE).

THE COMPUTER COMPANY

- In the past, when TCC could not compete for Medicaid contracts that required more resources (people/machines) than TCC could provide, it operated as a subcontractor to other bidders. Contractual agreements have been made with:
 - Electronic Data Systems (EDS) - North Carolina Medicaid.
 - Computer Sciences Corporation (CSC) - California Medi-Cal.
 - Bradford National - New York Medicaid (since acquired by McDonnell Douglas Automation Company).
 - System Development Corporation (SDC) - Florida Medicaid.
 - Hawaii Medical Service Association (HMSA) - Hawaii Medicaid.
- TCC claims that 50% of all Medicaid claims in the U.S. are processed by its Medicaid Management Information System software designs.
- Twenty percent of TCC's total revenue is derived from The Commercial Division's four departments. Interactive Data Base Systems provided 5% of revenue, Micromedia accounted for 6%, Information Services Division accounted for 5%, and Library Services Division provided 4% of 1984 revenue.
 - The Commercial Division is now emphasizing specialized products for its network service and is also incorporating microcomputer-based systems. Applications available on TCC's processing network are included in the exhibit.
 - Interactive Data Base Systems (IDS) provides interactive computing systems, related data bases, and services used primarily for market and financial analysis, maintenance management, and APL programming.
 - IDS has been phasing out its transportation data bases, scientific/engineering applications, and APL services. Currently, IDS offers the Financial Data Exchange which allows a scheduled exchange of data among participating financial institutions. Data exchanged includes information on loans, deposits, automated teller transactions, credit cards, and customer services.
 - TCC's Micromedia Group offers processing of both computer output microfilm (COM) and source document microfilm. The Group produces more than 16 million original frames (16mm and 105mm) per month and more than 500,000 copies.
 - Micromedia offers microfilm processing services for commercial, federal, and state clients. Significant among these clients are the Virginia, Georgia, Tennessee, Delaware, West Virginia, and Pennsylvania Medicaid programs. Micromedia produces more than 1.8 million frames of source documents and 16.5 million frames of COM per month for these customers.
 - TCC's Micromedia Group will enter the small systems market by offering the service of converting data output on floppy disk to magnetic tape in order to create microfilm.

THE COMPUTER COMPANY

EXHIBIT

TCC
NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none">● OPERATING ENVIRONMENT<ul style="list-style-type: none">- IBM 3033U16, MVS/SP/JES2- IBM 3081K32, MVS/SP/JES2- IBM 3081KX32, MVS/SP/JES2- IBM 3083B, MVS/SP/JES2● PROGRAMMING LANGUAGES SUPPORTED<ul style="list-style-type: none">- ANSI COBOL- PL/I- APL- FORTRAN- SYSTEM/370 ASSEMBLER- SPSS● PROGRAM DEVELOPMENT TOOLS<ul style="list-style-type: none">- TSO- ROSCOE● TELEPROCESSING MONITORS<ul style="list-style-type: none">- CICS- IMS● COMMUNICATION SOFTWARE<ul style="list-style-type: none">- ACF/VTAM- ACF/NCP● DATA MANAGEMENT SOFTWARE<ul style="list-style-type: none">- ADS- EASYTRIEVE- DYL-280- SAS● FINANCIAL APPLICATIONS/TOOLS<ul style="list-style-type: none">- TIME SERIES DATA ANALYSIS- FINANCIAL DATA EXCHANGES	<ul style="list-style-type: none">● DATA BASES AVAILABLE<ul style="list-style-type: none">- AIR MARKET- NETWORK TRAFFIC ANALYSIS- EMPLOYMENT STATISTICS- PASSENGER DATA- REVENUE DATA- AIRCRAFT OPERATING EXPENSES- TRANSPORT REVENUE- MAINTENANCE- PROMOTION AND SALES- ROUTE ANALYSIS- ORIGIN AND DESTINATION- STATISTICS BY CLASS OF SERVICE● BRANCH DATA MARKET ANALYSIS<ul style="list-style-type: none">- MIDAS● OTHER<ul style="list-style-type: none">- ACTION/PLOT (GRAPHICS)- ACTION/MAIL (MESSAGE COMMUNICATIONS)- REPORTS (REPORT GENERATION)- X-PERT (PROJECT CONTROL)

THE COMPUTER COMPANY

- The Information Services Division (IND) provides a variety of professional and processing services.
 - IND provides data entry, contract programming, facilities management consulting, and system development services to a broad customer base, including hospitals, federal, state, and local governments.
 - IND operates PLATO, a computer assisted instruction system, for Richmond schools. The system runs on Control Data computers installed at TCC. There are currently 216 on-line terminals installed at 19 schools. The system interactively responds to a student's answers in a lesson plan.
 - IND's Defense Automated Bidders Services (DABS) provides daily reports which outline purchases to be made by the Defense Logistics Agency (DLA) supply centers that are open for bidding. DABS also provides monthly reports on all contracts that have been awarded by DLA. This service is available to all contractors interested in selling to the Defense Logistics Agency.
- TCC's Library Services Division provides automated cataloging services and microform catalog services to academic, public, school, and special libraries. The main application of the services is to provide standardized (Library of Congress MARC-II) cataloging of library materials for use in computers such as circulation systems. Computer output microform catalogs frequently replace card catalogs in the libraries.
 - A partial listing of services includes:
 - Cataloging for current materials.
 - Microfiche, microfilm, roll microfiche catalogs.
 - Data base management.
 - Authority control.
 - Tape processing.
 - Microform equipment and supplies.
 - Bar code number generation.
 - Customized services.

INDUSTRY MARKETS

- TCC derives the majority of its revenue from the government-funded health insurance, library, financial, and manufacturing industries.

GEOGRAPHIC MARKETS

- Virtually one hundred percent of TCC's revenue is derived from the U.S.

THE COMPUTER COMPANY

- TCC's Social Services Division maintains branch offices in the District of Columbia, Wilmington (DE), Harrisburg (PA), Atlanta, Nashville, and Charleston (WV).
- The Commercial Division maintains a branch office in Santa Ana (CA).

COMPUTER HARDWARE AND SOFTWARE

- TCC maintains two data centers in Richmond (VA) for all health claims processing and commercial data processing. TCC also manages a data center in Nashville to support its state government work.
 - The operating systems for TCC's principal hardware are MVS/SP/JES2.
 - TCC has the following hardware installed:
 - . 1 IBM 3033U16.
 - . 2 IBM 3081K32s.
 - . 1 IBM 3081KX32.
 - . 1 IBM 3083B.
 - Approximately 60 billion characters of on-line storage are maintained.
 - In addition to the control program, language processors provide full support for ANSI COBOL, PL/I, APL, FORTRAN, SPSS, and System/370 Assembler Language.
 - Utility programs are provided to assist in processing production or test work. These include a high performance sort/merge package, dumps, restore utilities, report generators, dataset formatters, and on-line text and program editors.
- TCC's data bases are mainly accessed through Tymnet. However, CICS applications are available through SNA/SDLC dial-up lines.

COMPANY HIGHLIGHT

THE COMPUTER COMPANY
1905 Westmoreland Street
Richmond, VA 23230
(804) 358-2171

Walter R. T. Witschey, President
Public Corporation, Closely Held
Total Employees: 861
Total Revenue Fiscal Year End
3/31/82: \$30,371,000

THE COMPANY

- The Computer Company (TCC) was formed in 1968 by seven ex-IBM employees to provide facilities management and timesharing services. Expansion beyond internal growth occurred through:
 - A contract award in 1972 to develop and operate a Medicaid claims processing system for the State of Virginia.
 - Acquisition of the Richmond (VA) office of a microfilm service firm in 1972.
 - Acquisition of APL Services, Inc. (a former TCC customer) in 1974.
- TCC currently derives the majority of its revenue from Medicaid processing contracts. Fiscal 1982 revenue of \$30.4 million increased 50% over 1981 revenue of \$20.2 million. TCC's annual growth rate for the last five years has averaged 33%. Following is a five-year summary:

TCC
FIVE-YEAR REVENUE SUMMARY
(\$ thousands)

ITEM \ FISCAL YEAR	3/82	3/81	3/80	3/79	3/78
Revenue	\$30,371	\$20,200	\$13,700	\$14,000	\$9,700
• Percent increase (decrease) from previous year	50%	47%	(2%)	44%	33%

- TCC's growth rate for the last two years is attributed to three major Medicaid contract awards for Medicaid processing in Pennsylvania, Louisiana, and Washington, D.C.

THE COMPUTER COMPANY

- Revenue distribution by TCC's four divisions was:

Division	Percent Contribution to Revenue	Revenue Value (\$ thousands)
Social Services	79%	\$24,123
Interactive Data Base		
Systems (IDS)*	9	2,768
Micromedia	7	1,924
Commercial Services	5	1,556
	100%	\$30,371

*Formerly called APL Timesharing

- As of March 31, 1982 TCC employed 861 persons. In November 1982 the company had 843 employees, distributed as follows:

Management	78
Marketing/sales	10
Operations	51
Data entry	292
Clerical	237
Systems and programming	87
Other	88
	843

- TCC's competition for Medicaid processing services comes from Electronic Data Systems, Computer Sciences, System Development Corporation, MCAUTO, and Blue Cross/Blue Shield.

KEY PRODUCTS AND SERVICES

- Approximately 93% of TCC's revenue is derived from processing services provided by its Social Services, IDS, and Commercial Services Divisions. The remaining 7% is attributed to source document filming and microfilm equipment sales associated with the Micromedia Division.
- Seventy-nine percent of TCC's total revenue is derived from processing services, software licensing agreements, and development contracts managed by the Social Services Division (Medicaid).
 - The following Medicaid contracts are currently held by TCC:
 - Delaware-fiscal agent.
 - Pennsylvania-operations support.
 - District of Columbia-fiscal agent.

THE COMPUTER COMPANY

- Virginia-fiscal agent.
- Louisiana-fiscal agent.
- West Virginia-claims processing.
- When TCC cannot compete for Medicaid contracts because they require more resources than TCC can provide, it operates as a subcontractor to another bidder. Contractual agreements have been made with:
 - Computer Sciences (California Medicaid).
 - McDonnell Douglas Automation Company (formerly negotiated with Bradford for New York Medicaid).
 - System Development Corporation (Florida Medicaid).
 - Electronic Data Systems, Federal (North Carolina Medicaid).
- TCC claims that 50% of all Medicaid claims are processed by its Medicaid Management Information System software designs.
- TCC's IDS Division revenue of \$2.7 million in fiscal 1982 showed a decline from \$3.4 million reported in 1980. To compensate for losses in the generalized APL timesharing market, TCC is now emphasizing specialized products for its network service and is developing several microcomputer-based systems.
 - TCC offers interactive computing systems, related data bases, and services used primarily for market and financial analysis, maintenance management, and APL programming. These on-line systems generate management information used for planning, forecasting, and control.
 - Specialized products marketed by IDS include:
 - Financial Industry Services.
 - Branch Data Exchange: a semiannual or quarterly exchange of data among participating financial institutions. Data exchanged includes information on loans, deposits, automated teller transactions, credit cards, and customer services.
 - MIDAS: an interactive system which allows users to define and study specific market areas, based on the information in the Branch Data Exchange.

THE COMPUTER COMPANY

- Transportation Data Bases.
 - Comprehensive data bases of current and historical air traffic, airport statistics, airline financial statistics, and railroad data to aid in market analysis and route planning. TCC offers Form 41, ER-586, ER-586/T-9, Domestic and International Origin and Destination, Commuter, and Interstate Commerce Commission data.
- APL.68000 Interpreter and Interactive Software.
 - APL.68000 allows the use of the APL language on 16/32-bit microcomputers which incorporate the MC68000 microprocessor. Because the interpreter is a full implementation of ACTION/APL.SV used by the TCC time-sharing service, APL.68000 offers all the advantages of interactive computing using the APL language, plus the convenience to the customer of having his own machine.
 - APL.68000 operates as a standalone system or can be connected to TCC's network.
 - Other software products which use APL.68000 and are available on the network include: ARS, a reporting system; MICRO PLOT, a plotting system; and MICRO SPAN, an APL self-teaching course.
 - Applications available on TCC's processing network are included in the exhibit.
- TCC's Micromedia Division offers state-of-the-art processing of both computer output microfilm (COM) and source document microfilm. The division produces more than 10 million original frames (16mm and 105mm) per month and more than 500,000 copies.
 - Micromedia offers a full line of microfilm processing services for commercial, federal, and state clients. Significant among these clients are the Virginia, Delaware, West Virginia, and Pennsylvania Medicaid programs. The division produces more than 1.8 million frames of source documents and 113,000 frames of COM per month for these customers.
- The Commercial Division offers a variety of data processing services to a diverse group of customers.
 - The Library Group uses a unique data management system to handle the large and intricate file structures of library applications. The system allows for on-line claiming of bibliographic records for retrospective conversion and acquisitions, as well as an original cataloging module which interfaces directly with the Library of Congress' name

THE COMPUTER COMPANY

EXHIBIT

TCC
NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none">● OPERATING ENVIRONMENT<ul style="list-style-type: none">– IBM 370/168, OS/MVT– AMDAHL 470 V/6, OS/MVS● PROGRAMMING LANGUAGES SUPPORTED<ul style="list-style-type: none">– APL● DATA MANAGEMENT SOFTWARE<ul style="list-style-type: none">– ADS● FINANCIAL APPLICATIONS/TOOLS<ul style="list-style-type: none">– FAS (FINANCIAL ANALYSIS)– BASIS (RISK ANALYSIS)– TIME SERIES DATA ANALYSIS– FINANSEER● SCIENTIFIC/ENGINEERING<ul style="list-style-type: none">– COGO– AC ELECTRICAL CIRCUIT ANALYSIS– LINEAR PROGRAMMING– PIPING ANALYSIS– NUMEROUS ROUTINES FOR:<ul style="list-style-type: none">• ELECTRICAL ENGINEERING• MATHEMATICS• STRUCTURAL ENGINEERING• STATISTICS● OTHER<ul style="list-style-type: none">– ACTION/PLOT (GRAPHICS)– ACTION/MAIL (MESSAGE COMMUNICATIONS)– REPORTS (REPORT GENERATION)– X-PERT (PROJECT CONTROL)– SMRT (SCHEDULING AND MAINTENANCE)– ARS (REPORTING)– MICRO PLOT (PLOTTING)– MICRO SPAN (SELF-TEACHING COURSE)	<ul style="list-style-type: none">● DATA BASES AVAILABLE<ul style="list-style-type: none">– ENERGY<ul style="list-style-type: none">• A.P.I. WEEKLY STATISTICAL BULLETIN• A.P.I. IMPORTS– AIR MARKET<ul style="list-style-type: none">• FLIGHTPATH• AIR TRAFFIC DATA• NETWORK TRAFFIC ANALYSIS• EMPLOYMENT STATISTICS• PASSENGER DATA• REVENUE DATA• AIRCRAFT OPERATING EXPENSE• TRANSPORT REVENUE• MAINTENANCE• PROMOTION AND SALES• ROUTE ANALYSIS• ORIGIN AND DESTINATION• STATISTICS BY CLASS OF SERVICE● BRANCH DATA MARKET ANALYSIS<ul style="list-style-type: none">– MIDAS– BDX● TIMMACS (THE INTEGRATED MAINTENANCE MANAGEMENT ANALYSIS AND CONTROL SYSTEM)

THE COMPUTER COMPANY

and subject authority files. TCC has a contract with the state of Virginia and is marketing the service to other libraries.

- The Information System group provides facilities management consulting and systems development services to a broad customer base, including city school systems, hospitals, manufacturing concerns, grocery chains, the Richmond Area Manpower Planning System, and federal, state, and local governments.
- The Financial Group provides full on-line, interactive services to savings and loan associations through a license agreement to use the Canton System developed by Citizens Savings of Ohio. Processing is performed from the Richmond data center.

INDUSTRY MARKETS

- The Computer Company derives the majority of its revenue from the government-funded health insurance, transportation, utilities, financial, and process manufacturing institutions.

GEOGRAPHIC MARKETS

- With the exception of IDS micro interpreter sales overseas, all revenue is derived from the U.S.
- TCC's Social Services Division maintains offices in the District of Columbia, Newark (DE), Baton Rouge, Raleigh, (NC), Harrisburg (PA), and Charleston (WV). The IDS Division maintains branch offices in Santa Ana (CA), New York City, and Houston.

COMPUTER HARDWARE AND SOFTWARE

- TCC maintains one data center in Richmond, Virginia. Branch locations are served through the internal network. Other locations use Tymnet. Equipment at the Richmond Data Center consists of:
 - 1 Amdahl 470 V/6, OS/MVS.
 - 1 IBM 370/168, OS/MVT.
 - Honeywell Page Printing System.
- In addition to providing on-line services for the IDS timesharing division, the data center also handles claims processing for Medicaid contracts with the District of Columbia, Delaware, Louisiana, North Carolina, Virginia, and West Virginia.

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*P.A.
V.P. Wor
T.C.*

COMPANY HIGHLIGHT

Ned Robinson next update interview

THE COMPUTER COMPANY
1905 Westmoreland Street
Richmond, VA 23230
(804) 358-2171

Walter R. T. Witschey, President
Public Corporation, Closely Held
Employees: 650
Total Revenues Fiscal Year End
3/31/80: \$13,700,000

*3/31/81 20178 000
\$30 000 000*

THE COMPANY

- The Computer Company (TCC) was formed in 1968 by seven ex-IBM employees to provide facilities management and timesharing services. Expansion beyond internal growth occurred through:
 - A contract award in 1972 to develop and operate a Medicaid claims processing system for the State of Virginia.
 - Acquisition of the Richmond (VA) office of a microfilm service firm in 1972.
 - A merger agreement between TCC and APL Services Inc. (a former TCC customer) in 1974.
- TCC derives the majority of its revenues from Medicaid contracts. Several factors cause Medicaid revenues to flow unevenly:
 - There is often a startup period of several months during which expenses are incurred but revenues are not realized until the operations portion of the contract starts.
 - Working as a subcontractor often produces a lump-sum payment at contract milestones with relatively small revenues in between.
 - HEW certification of a Medicaid system usually occurs six months after a system enters production. Often there are lump-sum revenues associated with this certification.
- TCC's FY 1980 revenues were \$13.7 million, a 2% decline from FY 1979. The decline in revenues was attributed to:
 - A one-time payment fee of \$600,000 received in 1979 upon certification of the New York Medicaid contract and another \$400,000 in other contract fees.

COMPANY HIGHLIGHT/THE COMPUTER COMPANY

- A lack of new contract revenues for Medicaid services. Although two new contracts were awarded to TCC, the company will not realize revenues until FY 1981.
- . The West Virginia contract was temporarily stopped due to EDS contesting the award.
- . Revenues of \$3-5 million from the Pennsylvania contract will be received in FY 1981.
- Following is a five-year financial summary:

TCC FIVE-YEAR FINANCIAL SUMMARY (FYE 3/31, \$ Thousands)

ITEM	FISCAL YEAR	1980	1979	1978	1977	1976
Total Revenues		\$13,700	\$14,000	\$ 9,700	\$ 7,300	\$ 6,300
• Percent increase from previous year		(2%)	44%	33%	16%	13%

- TCC currently has four divisions. An approximate revenue distribution of each follows:

Division	% Contribution To Revenue	Revenue Value
Social Services	50%	\$ 6,850,000
APL Timesharing	25	3,425,000
Micromedia	15	2,055,000
Commercial Services	10	1,370,000
	100%	\$13,700,000

- In 1978, TCC established a Small Systems Group to develop a turnkey system based on TI 990s for group practice accounting and patient tracking. TCC still sells the software but no longer sells the TI 990s.
- An approximate distribution of TCC's employees follows:

- Management	70
- Marketing/sales	20
. APL Division (12)	
. Other divisions (8)	
- Operations	65
- Data entry	130
- Clerical	170
- Systems and programming	195
	650

COMPANY HIGHLIGHT/THE COMPUTER COMPANY

- TCC's competition in Medicaid processing primarily comes from Electronic Data Systems and Blue Cross/Blue Shield. The APL Division competes with I. P. Sharp, STSC and Proprietary Computer Systems.

KEY PRODUCTS AND SERVICES

- Approximately 96% of TCC's revenues are derived from processing services provided by its Social Services, APL Timesharing and Commercial Services Divisions. The remaining 4% is attributed to source document filming and microfilm equipment sales associated with the TCC Micromedia Division.
- Fifty percent of TCC's total revenues are derived from processing services, software licensing agreements, and development contracts managed by the Social Services Division (Medicaid).
 - The following Medicaid contracts are currently held by TCC:
 - . South Dakota - software development.
 - . North Carolina - joint contract with EDS. TCC is processing the pharmacy claims.
 - . Delaware - fiscal agent.
 - . Maryland - software development.
 - . Pennsylvania - operations support.
 - . Virginia - fiscal agent.
 - . West Virginia - claims processing.
- When TCC can't compete for Medicaid contracts that require more resources than TCC can provide, it operates as a subcontractor to another bidder. Contractual agreements have been made with:
 - . Computer Sciences, California Medicaid.
 - . Bradford National, New York Medicaid.
 - . System Development Corporation, Florida Medicaid.
- TCC claims that 40% of all Medicaid claims are processed by its Medicaid Management Information System software designs. The federal government's medical program is also using a nucleus of TCC software.
- In addition to Medicaid, government programs for which the Social Services staff has provided support include the following:

COMPANY HIGHLIGHT/THE COMPUTER COMPANY

- New Hampshire Automated Food Stamp Program development.
- Virginia Social Services Information System pilot projects.
- Virginia Human Affairs Information System conceptual design.
- Virginia Welfare Recipient Eligibility System design.
- Maryland Automated Income Maintenance System development.
- Virginia Department of Mental Health and Retardation Automated Patient Census and Reimbursement System development.
- TCC's APL Timesharing Division had revenues of approximately \$3.4 million in FY 1980. There are about 300 users on the network, with the heaviest concentration of clients located on the East Coast.
 - Major proprietary products on TCC's network are:
 - AIRMARKET, an English-language retrieval system. Originally designed as a tool to access on-line airline data bases, the system has been expanded to include data bases for the trucking and rail industries, in addition to air traffic. On-line financial and traffic data for these industries allow an analyst to perform a variety of statistical analyses, such as fuel costs, traffic trends and competitive market shares.
 - AIRMARKET is the largest revenue-producing product on TCC's network.
 - FINAN\$EER, a financial planning system, was developed by TCC about a year ago. It is used for strategic profit planning, budget tracking, break-even analysis, flow of funds, manpower planning, lease purchase analysis and debt structure analysis.
 - X-PERT is a project scheduling system. Capabilities include easy-to-use report generation, project resource usage tracking, multicalendar scheduling and user-specified input formats.
 - ADS, a data base management system, provides capabilities for updating, searching and reporting information.
 - Other key products are:
 - ENERGY, a weekly petroleum data base containing reserve and production information.

COMPANY HIGHLIGHT/THE COMPUTER COMPANY

- SMRT, Scheduling and Maintenance Review and Tracking System, was designed to meet the needs of the power-generating industry. Subsystems are offered for Maintenance Reporting, Outage Management/Scheduling and Operations Reporting.
- A profile of applications available on TCC's network is presented in Exhibit A.
- TCC's Commercial Division, contributing about \$1.4 million to FY 1980 revenues, provides data entry, on-line and batch processing, programming and facilities management services primarily to companies in the Richmond (VA) area.
- TCC is the largest microfilm services vendor in Virginia. With revenues of \$2 million, approximately 75% of the Micromedia Division's revenues comes from COM services, 5% from source document filming, and 20% from microfilm equipment sales.

INDUSTRY MARKETS

- TCC derives the majority of its revenues from the government-funded health insurance, transportation, utilities and process manufacturing industries.

GEOGRAPHIC MARKETS

- One hundred percent of TCC's revenues are derived from the U.S. Its largest concentration of clients is on the Eastern Seaboard.
- TCC's Social Services Division maintains offices in Sacramento (CA), Newark (DE), Raleigh (NC), Harrisburg (PA) and Charleston (WV).
- The APL Timesharing Division has offices in Boston, New York, Houston, Washington (DC) and Los Angeles.

COMPUTER HARDWARE AND SOFTWARE

- TCC maintains one data center in Richmond (VA). Branch locations are served through TCC's internal network. Other locations use Tymnet. Equipment at the center consists of:
 - Two IBM 370/158s, 3 MB, MVS and OS.
 - Honeywell Page Printing System.
- In addition to providing on-line services for the APL Timesharing Division, the data center also handles claims processing for Virginia, Delaware, North Carolina and West Virginia Medicaid contracts.

EXHIBIT A

TCC
NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none"> • OPERATING ENVIRONMENT <ul style="list-style-type: none"> – IBM 370/158 OS • PROGRAMMING LANGUAGES SUPPORTED <ul style="list-style-type: none"> – APL • DATA MANAGEMENT SOFTWARE <ul style="list-style-type: none"> – ADS • FINANCIAL APPLICATIONS/TOOLS <ul style="list-style-type: none"> – FAS (FINANCIAL ANALYSIS) – BASIS (RISK ANALYSIS) – TIME SERIES DATA ANALYSIS – FINANSEER • SCIENTIFIC/ENGINEERING <ul style="list-style-type: none"> – COGO – AC ELECTRICAL CIRCUIT ANALYSIS – LINEAR PROGRAMMING – PIPING ANALYSIS – NUMEROUS ROUTINES FOR: <ul style="list-style-type: none"> • ELECTRICAL ENGINEERING • MATHEMATICS • STRUCTURAL ENGINEERING • STATISTICS • OTHER <ul style="list-style-type: none"> – ACTION/PLOT (GRAPHICS) – ACTION/MAIL (MESSAGE COMMUNICATIONS) – REPORTS (REPORT GENERATION) – X-PERT (PROJECT CONTROL) – SMRT (SCHEDULING AND MAINTENANCE) 	<ul style="list-style-type: none"> • DATA BASES AVAILABLE <ul style="list-style-type: none"> – BUREAU OF MINES PRODUCTION DATA – RAIL AND TRUCKING <ul style="list-style-type: none"> • ICC TRAFFIC AND FINANCIAL DATA – ENERGY <ul style="list-style-type: none"> • A.P.I. WEEKLY STATISTICAL BULLETIN • A.P.I. IMPORTS – CITIBASE (NBER) – AIR MARKET <ul style="list-style-type: none"> • CARGO • FLIGHTPATH • AIR TRAFFIC DATA • NETWORK TRAFFIC ANALYSIS • EMPLOYMENT STATISTICS • PASSENGER DATA • REVENUE DATA • AIRCRAFT OPERATING EXPENSE • TRANSPORT REVENUE • MAINTENANCE • PROMOTION AND SALES • ROUTE ANALYSIS • INVENTORY OF AIRFRAMES • CHARTER DATA • ORIGIN AND DESTINATION • STATISTICS BY CLASS OF SERVICE

COMPANY HIGHLIGHT

THE COMPUTER COMPANY
1905 Westmoreland Street
Richmond, Virginia 23230
(804) 358-2171

Walter R. T. Witschey, President
Private Corporation
Computer Services Employees: 345
Revenues, Fiscal Year End 3/78:
\$9.7 million

THE COMPANY

- The Computer Company (TCC) was incorporated in Richmond, Virginia in 1968. Key founders were messrs, Witschey, Enfield, Neblett and Moore.
- In January 1974, the merger of APL Services, Inc., a major TCC customer, and TCC formed TCC APL Timesharing Division.
- TCC has five major divisions listed as follows in order of revenue contribution:

<u>Division Name</u>	<u>% Contribution To TCC Revenue</u>
Social Services Division	50%
APL Timesharing Division	25
Micromedia Division	15
Commercial Services Division	8
Small Systems Division	2
	100%

- TCC reported net income of \$251,049 and \$412,239 in 1977 and 1978 respectively, an increase of 64%. Management reports growth in all areas, especially Social Services and Timesharing.
- The 345 TCC employees are distributed throughout the company as follows:

- Management	36
- Marketing	12
- Operations	36
- Data Entry	70
- Clerical	88
- Systems and Programming	103
	345

March 1979

COMPANY HIGHLIGHT/THE COMPUTER COMPANY

KEY PRODUCTS AND SERVICES

- Ninety-eight percent of TCC's revenue is generated by processing services and 2% stems from the sale of miscellaneous supply items. Sixty percent of TCC's processing services is facilities management (with 60% of the facilities management business handled remotely,) 25% remote computing (all interactive) and 15% derived from micromedia processing.
- The Social Services Division performs operations and development for Medicaid systems for the following states: Virginia, Maryland, North Carolina, Florida, Delaware, New York and California.
 - Various contracts are joint ventures with Bradford National Computer, Computer Sciences and SDC.
 - TCC is the fiscal agent in both Virginia and Delaware.
- The APL Timesharing Division provides network services, via local dial up, to over 100 U.S. cities and 20 overseas locations. In addition to general timesharing services, the network also offers:
 - ATOMIC, a maintenance and outage scheduling system for nuclear power plants.
 - AIRMARKET, a generalized database system for the airline industry. TCC maintains the world's largest commercially available airline database.
- The Micromedia Division is a full-line microfilm service covering the central Virginia area. In addition to the local business, TCC has several large government and trade association contracts based in Washington, D.C.
- The Commercial Services Division has several large batch and RJE clients throughout the U.S.
- The Small Systems Division markets a group practice accounting and patient tracking system. Sales are supported nationally from Richmond.

APPLICATIONS Seventy-five percent of TCC's business has specialty application for the medical and utilities industries, the remaining 25% is general business.

INDUSTRY MARKETS

Leading industry markets of TCC are:

Insurance (Medicaid)
Utilities
Transportation
Process Manufacturing

COMPANY HIGHLIGHT/THE COMPUTER COMPANY

GEOGRAPHIC MARKETS National with heavy concentration on the East coast.

COMPUTER HARDWARE & SOFTWARE

- Central Processors:
 - | IBM 370/155, 3MB, OS
 - | IBM 370/158, 3MB, OS
- Additional software used on their systems:
 - APLSV from IBM.
 - Johnson Accounting System.
 - UCC-Two (TMS).
 - 3705 software from COMM-PRO Associates.
 - TCAM.
 - HASP
 - CICS
 - ROSCOE.
- TCC's network currently supports 200 to 300 users of all terminal types.



*John Cox
Net'l Mkt Mgr.*

COMPANY HIGHLIGHT

THE COMPUTER COMPANY
1905 Westmoreland Street
Richmond, Virginia 23230
(804) 358-2171

Walter R. T. Witschey, President
~~Private~~ Public Corporation
Computer services employees: 230
Revenues, fiscal year end 3/76:
\$6.3 million

COMPANY BACKGROUND:

- The Computer Company (TCC) was incorporated in Richmond, Virginia in 1968. Key founders were the Messrs. Witschey, Enfield, Budette, and Moore.
- In January 1974, the merger of APL Services, Inc., a major TCC customer, and TCC formed TCC's APL Timesharing Division.
- TCC has five divisions. They are, in order of revenue size: Government Systems Division, providing government health care services; the APL Timesharing Division; the General Services Division, offering local batch services; the COM Division, providing computer output microfilm; and the Minicomputer Division.

OVERALL ASSESSMENT:

- TCC suffered a net loss of \$1,031 in 1975 as a result of two events TCC considers one-time occurrences.
 - The merger of APL Services, Inc. with TCC in January, 1974, created substantial expenses which were carried over into fiscal year 1975, beginning April 1, 1974.
 - In fiscal year 1975, TCC started-up and ended a turnkey minicomputer application for the dental industry. The service, which was priced above the targeted market, is now successfully being offered to dentists on a time-sharing basis.
 - The expenses of both these projects were fully paid in 1975, and the 1976 annual report showed a profit of \$501,418, approximately 8% of the 1976 revenues. Fiscal year 1977 shows "substantial profit," to date, according to company sources.
- Government health care services have been TCC's major revenue generator. However, the rapid growth of the APL Timesharing Division may soon make it the biggest revenue generator in the company.

(Air Market will double revenues to airline sector by timesharing division)

COMPANY HIGHLIGHT/ THE COMPUTER COMPANY

substantially increase

- A new timesharing product for the airline industry - AIR MARKET - is expected to double the revenues of the Time-sharing Division within the next six months. AIR MARKET is a data base containing air travel information on 68,000 domestic city pairs.
- TCC also expects to announce two or three other new airline timesharing products within the next 90 days. One has already been successfully marketed to users. It will provide domestic and international itinerary data by air carrier to U.S. air carriers, U.S. government agencies, and CAB-approved consulting firms.
- TCC claims to be the third largest APL timesharing vendor in the world, with revenues exceeded only by I.P. Sharp, Toronto; and Scientific Time Sharing Corporation, Bethesda. TCC offers more comprehensive airline products and claims to have more experienced personnel and better service than its competitors.

KEY PRODUCTS/SERVICES:

- The APL Timesharing Division, the division with the most clients, offers the following key services:
 - ACTION/APL, an interactive timesharing system providing more than 2000 applications programs.
 - ACTION/PERT, a project and evaluation and review technique.
 - SPSS/CAESAR, a new remote job entry service. It is a card archive and edit system for APL-RJE offering editing of, and access to, data in the statistical package for the social sciences.
 - A'AIMS, an analytical information management system for the airline industry, which provides access to Civil Aeronautics Board, National Bureau of Economic Research, and A'AIMS user data bases.
 - The timesharing services are available in 10 cities on TCC's own network and in approximately 45 additional cities over Tymshare Inc.'s Tymnet network. All foreign locations: Mexico, Canada, London, Brussels, Lauzanne, and Paris are available over Tymnet.

COMPANY HIGHLIGHT/THE COMPUTER COMPANY

- The Government Systems Division, the division with the most revenues, provides Medicaid/Medicard processing to the State of Virginia.
- The other divisions offer batch, microfilm and minicomputer services.

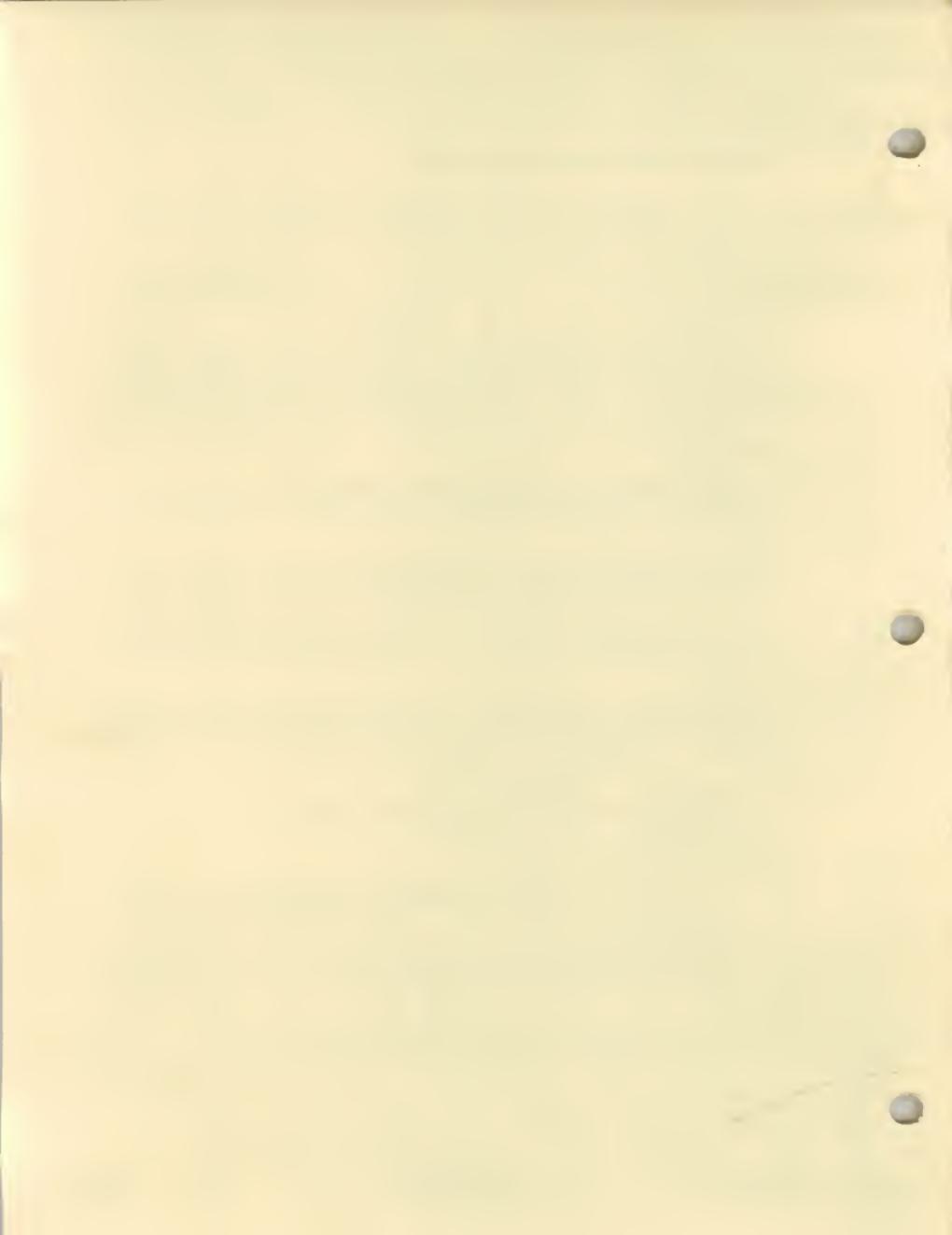
APPLICATIONS: The bulk of TCC total revenues in 1976 were generated by specialty applications in the Government Systems Division. The remaining revenues were generated by general business and data base applications. The bulk of the APL Timesharing Division revenues were generated by general business applications. The remaining APL revenues came from data base applications to the airline and petroleum industries primarily.

INDUSTRY MARKETS: A breakdown of TCC revenues by industry is not available, although the airlines and medical industries represent the bulk of the revenues.

GEOGRAPHIC MARKETS: The vast majority of TCC total revenues were derived from the Southeast U.S., specifically Virginia. The remainder came from throughout the U.S., except the North Central region. The major sources of the APL Division revenues were the Southeast, South Central, and Northeast regions. The remaining APL revenue sources were scattered throughout the rest of the U.S., except the North Central region.

COMPUTER HARDWARE AND SOFTWARE: TCC uses the same equipment and software to provide computer services to its clients and to satisfy in-house needs. The equipment is as follows:

Mainframe: 1 IBM 370/155 with OS
Communications Processor: 1 Varian 1620 and 1 IBM 3705
Disc Drives: Several IBM 3330s
Tape Drives: 5 IBM
Line Printers: 2 IBM 1401s
Terminals: Clients are responsible for purchasing own terminals. TCC currently supports 200 to 300 user terminals. It supports all terminal types.
Software Products Purchased: APL operating system on lease from IBM, Johnson Monitoring system purchased to track resources utilization, Compress software in use with 3705.



COMPANY PROFILE

COMPUTER CONSOLES, INC.

Bay Colony Corporate Center
950 Winter Street
Waltham, MA 02154
(617) 890-0708

John Cunningham, Chairman and CEO
Public Corporation, AMEX
Total Employees: 1,400
Total Revenue, Fiscal Year End
12/31/87: \$148,394,000

The Company

Computer Consoles, Inc., founded in 1968, designs, develops, manufactures, markets, and services UNIX-based computer systems and software for the office and communications markets. The company's products include superminicomputers (the POWER5® and POWER6™ family of computers), integrated multi-functional office automation systems, and large data base turnkey systems for the telecommunications industry.

CCI's strategy during 1987 was to improve profitability, complete a financial restructuring of the company, introduce new products, and build and fine tune its distribution channels.

On November 30, 1987, CCI completed a major financial restructuring. Its subsidiary, Computer Console Leasing Corporation, sold approximately 40% of its lease portfolio of computerized directory assistance systems and related receivables to General Electric Capital Corporation for approximately \$48 million. The proceeds were used to repay all existing bank loans, reducing interest expense by \$4.5 million. As a result, lease revenues in 1988 were reduced by \$7 million.

Revenue for 1987 was \$148.4 million, a 14.5% increase over fiscal 1986 revenue of \$129.6 million. Net income was \$11.3 million, compared with a loss (restated) of \$4.4 million in 1986.

A five-year financial summary follows:

**COMPUTER CONSOLES, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	1987	1986	1985	1984	1983
Revenue	\$148,394	\$129,557	\$111,880	\$131,187	\$103,550
• Percent increase (decrease) from previous year	15%	16%	(15%)	27%	31%
Income before extraordinary item	\$9,611 (a)	\$4,383	\$(41,911)	\$6,290	\$10,392
• Percent increase (decrease) from previous year	319%	90%	(766%)	(39%)	N/A
Net income/(loss)	\$11,320 (b)	\$(4,383)	\$(41,911)	\$6,290	\$10,392
• Percent increase from previous year	358%	90%	(766%)	(39%)	N/A
Earnings per share	\$ 0.83 (b)	\$(0.35)	\$(3.61)	\$ 0.54	\$ 0.87
• Percent increase (decrease) from previous year	337%	90%	(769%)	(38%)	N/A

- (a) Includes a pre-tax gain of \$6.8 million from the company's sale of part of its lease portfolio to General Electric Capital Corporation.
- (b) Includes extraordinary gain from the repurchase of a portion of its convertible subordinated debentures of \$1.7 million (\$0.13 a share) during the fourth quarter.

The increase in 1987 revenue included an increase in product sales of 24%, which resulted from significant revenue in superminicomputer sales to the company's original equipment manufacturers (OEMs), and higher sales to the company's resellers. Sales of communications systems also increased in 1987 reflecting sales of Listing Service Data Base products, particularly an installation of the LIFE-911 product, and sales of DAIS II intercept systems.

The increase in 1986 revenue reflected a significant increase in sales of communications systems, including shipments under a \$25 million add-on order for the expansion of the UK Directory Assistance System. Sales of computers and integrated office automation systems decreased slightly on an overall basis in 1986 due to significantly lower OEM sales. This was offset by higher sales to law firms and initial sales to new independent distributors.

The 1985 loss of \$41.9 million, which was \$58.8 million before tax benefits, reflected a 15% decline in revenue, significant changes in

product mix, \$16.6 million of provisions for excess and obsolete inventory and spares, and \$19.3 million of costs related to a program of internal restructuring and functional consolidation. In addition, CCI believes the net loss reflected an expense structure which was excessive due to overly optimistic sales projections.

During 1987, CCI increased its network of independent sales organizations by 40%, bringing the total number of CCI resellers to 84.

CCI is organized into two major divisions as follows:

- The Communications Systems Division in Rochester (NY) supplies large data base turnkey systems to the telecommunications industry both in the U.S. and in certain international markets. This division's strategy is based on three product directions:
 - Listing Service Data Base applications which provide access to customer name, address, and telephone number data in residential, business and government listings.
 - Service Control Point technology, which provides application intelligence for digital switching networks.
 - Advanced audio systems, based on CCI's Audio Response System (ARS).
- The Computer Products Division in Irvine (CA) operates as a full-service computer company. This division manufactures the POWER family of superminicomputers and also provides office automation systems. CCI's stated strategy is to strengthen a business base of OEMs, while enlarging its network of value-added resellers (VARs) and office equipment resellers (OERs).
 - The division intends to continue direct sales to vertical markets, emphasizing its UNIX operating systems and software products.

CCI also operates the following units:

- CCI operates a development center for office automation systems in Reston, VA.
- CCI has a service organization which provides support and computer maintenance services for customers in all markets.

- Computer Consoles Leasing Corporation, a wholly owned finance subsidiary, conducts CCI's leasing operations. Its business has primarily consisted of leasing systems to customers in the telecommunications industry.
 - As previously mentioned, 40% of this subsidiary's lease portfolio was sold to General Electric Capital Corporation.

As of May 1988, CCI had approximately 1373 employees, segmented as follows:

Marketing and sales	250
Research and development	350
General and administrative	175
Manufacturing	375
Field service	250
	1400

CCI's competitors, by product area, include the following:

- In the computer systems market, CCI's primary competitors include DEC, Data General, Wang Laboratories, AT&T, Pyramid, and IBM.
- In the market for listing services directory systems, CCI believes it is the leading vendor in both the domestic and international markets.
- In the market for transaction processing systems, competitors include companies such as Tandem and Stratus, which have minicomputer-based fault tolerant architectures.

Key Products and Services

Approximately 71% of CCI's 1987 revenue was derived from sales of integrated systems, as compared with 65% of 1986 revenue. CCI's maintenance services and leasing operations comprised 17% of 1987 revenue, as compared with 19% of revenue in 1986. A three-year summary of sources of revenue, as provided by CCI, follows:

COMPUTER CONSOLES, INC.
THREE-YEAR SUMMARY OF REVENUE SOURCES
($\$$ millions)

ITEM	FISCAL YEAR					
	1987		1986		1985	
	REVENUE $\$$	PERCENT OF TOTAL	REVENUE $\$$	PERCENT OF TOTAL	REVENUE $\$$	PERCENT OF TOTAL
Sales	\$104.8	71%	\$84.5	65%	\$66.6	59%
Service and rental	25.2	17%	24.6	19%	23.0	21%
Finance	18.4	12%	20.5	16%	22.3	20%
Total	148.4	100%	129.6	100%	111.9	100%

The company's 1987 sources of revenue as segmented by division was as follows:

Communications Systems Division	48%
Computer Products Division	<u>52%</u>
	100%

The Communications Systems Division supplies large-database turnkey systems to the telecommunications industry. Its integrated systems are used to automate operator services.

- In 1987, CCI's Communications Systems Division received orders from Southern Bell, Puerto Rico Telephone Company, British Telecom, and Bell Canada. In total, new orders for this division increased by 20%.
- In 1987, the POWER6/32FTTM fault-tolerant computer system was introduced as the platform for CCI's new telecommunications products.

CCI's Communications Systems Division's established line of products include the following:

- The Directory Assistance System (DAS/CCI) is a computerized directory assistance system that automates the search procedures used by operators to locate numbers. It also allows continuous updates to be applied to the telephone listings. The current system has approximately 40 installations in over 100 locations.
- CCI is currently developing its fourth-generation DAS/CCI system, called Digital Directory Assistance (DDA), which

will operate on CCI POWER6/32FTTM processors. The new product will complement and upgrade existing customer systems by offering additional search features and the ability to interface with foreign inquiry terminals and the digital network. CCI plans to make this product available in early 1989.

- The Audio Response System (ARS), an enhancement to DAS/CCI, has a pre-recorded, digitized vocabulary stored in computer memory and is used to assemble and announce telephone listings to customers. Since its introduction in 1982, it has been installed in over 40 customer sites.
- CCI is currently developing an advanced version of ARS called the Announcement Subsystem which will accommodate interfaces in a digital network. CCI plans to introduce audio components, known as the Interactive Voice Subsystem and the Vocabulary Development System, as part of the Announcement Subsystem.
- The Interactive Voice Subsystem (IVS) is able to store hundreds of hours of variable length messages. IVS can interact with a caller through touch-tone signals, recorded messages, or by recording and transmitting the caller's voice. IVS is designed to support services such as Enhanced Intercept, Electronic Yellow Pages, and Automated Alternate Billing System (AABS). IVS is scheduled for 1988 availability.
- The Vocabulary Development System (VDS) allows telephone companies to create customized audio messages for recording and playback to customers. This capability will offer telephone companies control of their vocabulary generation and enable entry of customized messages onto the Announcement Subsystem. VDS is scheduled for late 1988 availability.
- The Distributed Automatic Intercept System (DAIS II) merges directory assistance and intercept operator positions. DAIS II, which utilizes CCI's audio response technology, provides a means for handling intercept calls. When a subscriber dials a non-working number, DAIS II delivers an automated announcement of the new number or other pertinent information to the caller, and when necessary, automatically connects the caller to the operator.

CCI's Communications Systems Division also offers a family of listing services data base (LSDB) products that build on CCI's

established product line. LSDB is designed to be a single data base allowing access to multiple CCI search applications, including DDA, DAISII, and Automated Listing Services (ALS). The LSDB products provide access to customer name, address, and telephone number data in residential, business, and government listings. CCI's first LSDB systems are planned for late 1988 delivery. The major applications in this family include the following:

- The Automated Listing Services (ALS) system allows searches on the white pages database using such criteria as address or telephone number, as well as traditional directory assistance search techniques. The system supports direct customer access (DCA) via public packet networks for business and industry, and videotext access for residential users.
- The Yellow Pages System (YPS) automates the yellow pages directory. At present, a consent decree restricts Bell Operating Companies in the U.S. from offering these services.
- The LIFE-911 is a third-generation emergency data base system that provides Automatic Location Information (ALI) to telecommunications personnel. The LIFE-911 system enables the call-taker to immediately identify the telephone number and address associated with a 911 call.
- In 1987, CCI introduced the Listing Services Gateway, or CCI Gateway Service Control Point, an open network system that links multiple CCI systems as well as digital switching systems, and potentially, foreign data base systems. The Service Control Point system gives operators access to multiple data bases from a single position, permit controlled public access to telephone information, and open networked communications links to non-telephone data bases. The Listing Services Gateway is planned for delivery in 1989.
 - During 1987, CCI signed joint development agreements with digital switch vendors AT&T, Northern Telecom, and Rockwell Telecommunications to design and produce compatible interfaces between their equipment and CCI's Gateway Service Control Point product.

The Computer Products Division manufactures the POWER family of computers and OFFICEPOWER^R office automation software.

The POWER5^R and POWER6TM superminicomputers employ the UNIX operating system and feature programmable subsystems,

controllers, and communications systems which are standard across the product line.

- The POWER6/32MP™ family of superminicomputers offers updated technology. The POWER6/32MP (15 MIPS), the POWER6/32EX™ (5 MIPS) and POWER6/32X™ (8 MIPS) form a field upgradable model group ranging from 64 to 128 users. The POWER6/32MP family was first installed in 1984 and has a base list price of \$150,000.
- CCI offers a compact version of the POWER6 series. The POWER6/32SE™ (3 MIPS), POWER6/32S™ (5 MIPS), and the POWER6/32SX™ (8 MIPS) were designed using smaller peripherals and do not require a computer room environment. Targeted towards the office and departmental computing market, these computers support from 32 to 96 users. The compact POWER6 series was first installed in 1987 and has a base list price of \$70,000.
 - As of May 1988, approximately 1,110 units from the POWER6/32 family have been shipped
- On the lower end of the product line are the POWER5/32X, a compact, desk-side unit that is based on the Motorola MC68000-series microprocessors, and the POWERSERVER 386/1000, a 32-bit microcomputer manufactured by Altos Computer Systems and remarketed by CCI. Both systems can support up to 16 users. The POWER5/32X was first installed in 1987 and has a list price of \$26,000, while the POWERSERVER 386/1000 was first installed in April 1988 and has a list price of \$11,385.
 - As of May 1988, approximately 590 POWER5/32 units and 10 POWERSERVER 386/1000 units have been shipped .
- CCI is also developing a series of reduced instruction set computing (RISC) computer systems called the POWER7/64. According to CCI, the new processors will deliver 40 MIPS of peak performance and 25 MIPS of sustained performance. The POWER7/64 series is scheduled for early 1989 availability.
- The OFFICEPOWER office automation system integrates various office functions, including word processing, electronic mail, file management, telephone messaging, appointment scheduling, and spreadsheets.
 - The OFFICEPOWER system is available on CCI's full range of processors, and can be linked into integrated networks for

communication and information sharing between local or remote systems.

- The OFFICEPOWER system has added features that allow users to modify the system to their particular needs. The User-Defined Applications Program (UDAP), for example, enables non-technical users to create and manage their own specialized data bases and, in conjunction with word processing, allows users to create their own computerized forms and record files. Its communications capabilities also permit access to outside databases such as WESTLAW, LEXIS, and ABA/NET.
- CCI's office automation systems support networking and communication protocols which include TCP/IP, ETHERNET, ARPA/MILNET, X.25, SNA 3270, SNA 3770 (RJE), and bisynchronous 3270 and 2780 IBM device emulators. The OFFICEPOWER system also supports microcomputer integration, providing microcomputer file server capabilities and enabling microcomputers to operate as full-function terminals within the system.
- Other products marketed through this division include the following:
 - The BASIC-K™ software compiler is the first of CCI's "liberator" products, allowing users to port applications onto CCI's processors. The BASIC-K software compiler gives users a migration path from Wang 2200 systems to CCI's systems. Announced in June 1987, CCI had received \$3.5 million in orders by year end.
 - CCI distributes and supports industry-standard peripheral devices that are manufactured by outside vendors. These include disk storage printers, and paper and envelope feeders. CCI also markets the POWERTERMINAL III™ graphics terminal, which was designed by CCI and is manufactured by an outside vendor.

Industry Markets

CCI's distribution strategy is to pursue direct product sales in specific, targeted markets and to seek indirect means of product distribution in general markets.

CCI's telecommunications products are marketed directly to the Regional Bell Operating Companies and other telecommunications companies in the U.S., and principally

through distributors in foreign countries. The company also markets directly to certain international customers.

The company's computer products are marketed through indirect distribution channels consisting of original equipment manufacturers (OEMs), value-added resellers (VARs), and independent office equipment resellers (OERs). OEMs represent 55%, VARs 25%, and OERs 10% of indirect sales.

- Internationally, these systems are marketed through distributorship and OEM arrangements, and in conjunction with wholly-owned foreign subsidiaries.
- Sales through CCI's various OEM arrangements constitute a significant portion of its sales.
 - Unisys markets CCI's products principally to commercial, educational, and telecommunications environments. Unisys resells CCI's POWER6/32EX, X, and MP systems as their Series 700/50, 51, and 52.
 - International Computers, Ltd. (ICL) of the U.K. markets CCI products as "departmental" systems, which targets general business more than technical users. ICL resells CCI's POWER6/32S family as the CLAN 5,6 and 7 models.
 - Standard Telephones and Cables (STC) of Australia targets vertical markets such as law firms.
 - Kerridge Computer Company, Ltd. of the U.K. adds the BASIC-K compiler to the POWER systems/OFFICEPOWER platform and targets Wang 2200 users. Kerridge, which originally developed the BASIC-K product, has contracted to CCI exclusive worldwide distribution rights outside the U.K.

CCI also markets its computer products directly to end-users in the U.S., primarily large law firms, government agencies, and major corporations. These direct sales represent about 10% of revenue.

In 1987, 1986, and 1985, sales to four customers represented 10% or more of CCI's consolidated revenues.

- Sales to Unisys amounted to \$19.0 million in 1987, and \$24.4 million in 1985.

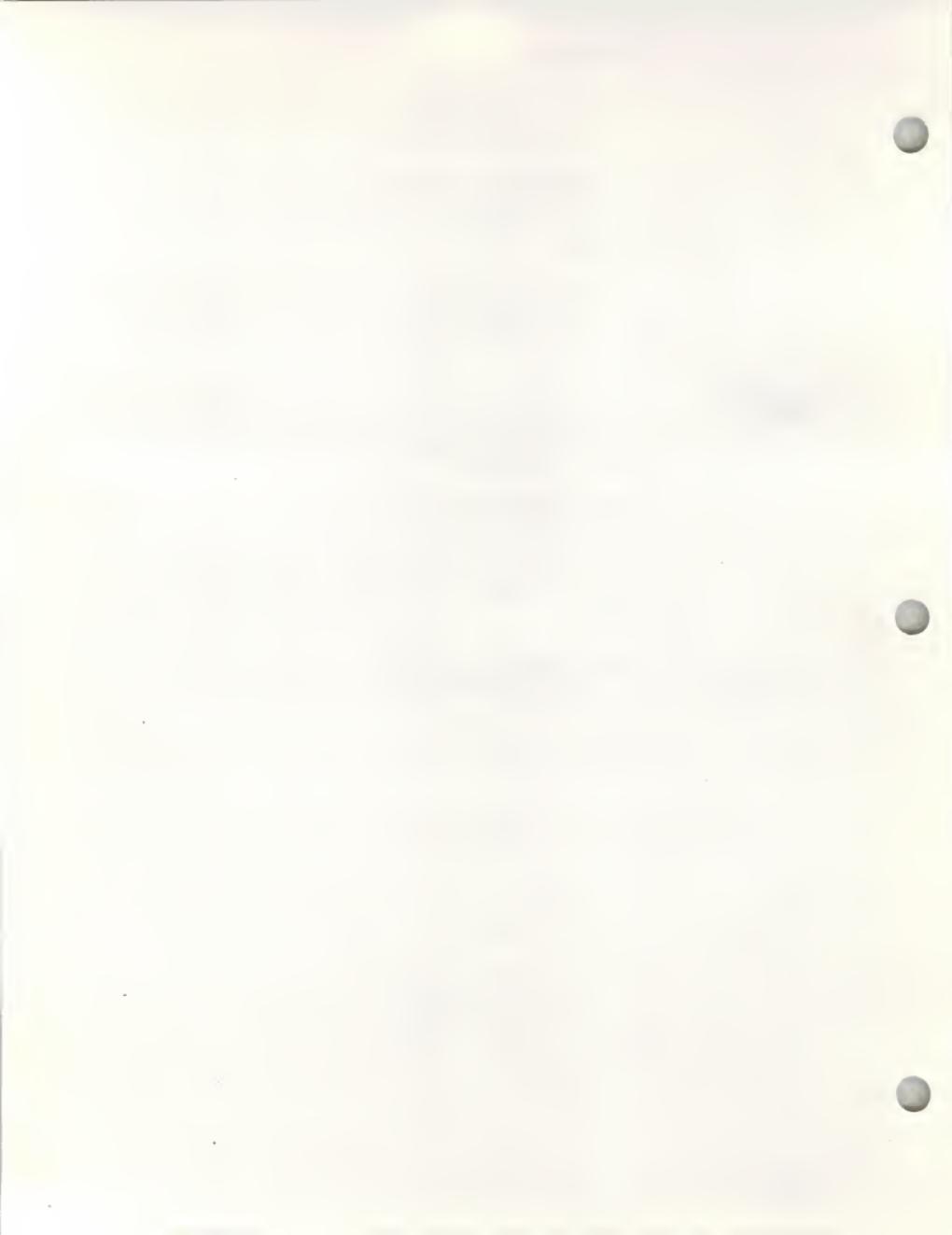
- Sales to STC Telecommunications amounted to \$18.5 million in 1986, and \$16.6 million in 1985.
- Revenues from Southwestern Bell Telephone Company amounted to \$14.8 million in 1986 and \$14.5 million in 1985, and revenues from Bell South Services were \$13.3 million in 1986.
 - Revenue from these two companies consisted primarily of service and finance income and represented more than 10% of the company's revenue.

Geographic Markets

Approximately 79% of 1987 revenue was derived from the U.S. and the remaining 21% from international sources, primarily the U.K. Export sales grew by 32% from \$24.1 million in 1986 to \$31.8 million in 1987.

CCI has agreements with International Computers, Ltd. (ICL) to distribute its computers and office systems in Europe, with Standard Telephone and Cables (STC) of the U.K. to distribute its computer products in Europe, and with STC Australia to distribute both its telecommunications and computer products in Australia.

The company has 23 sales offices in the U.S. and international sales offices in Canada, Hong Kong, England, and Germany.



FINANCIAL UPDATE TO PROFILE DATED NOVEMBER 1984*

COMPUTER CONSOLES, INC.
 97 Humboldt Street
 Rochester, NY 14609
 (716) 482-5000

John F. Cunningham, Chairman and CEO
 Public Corporation, AMEX
 Total Employees: 1,200
 Total Revenue, Fiscal Year End
 12/31/85: \$111,880,000
 Computer Services Revenue:
 \$89,500,000

COMPUTER CONSOLES, INC.
FIVE-YEAR FINANCIAL SUMMARY
 (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	1985	1984	1983	1982	1981
Revenue	\$ 111,880	\$ 131,189	\$ 103,550	\$ 79,102	\$ 60,240
• Percent increase from previous year	(15%)	27%	31%	31%	18%
Income (loss) before taxes	\$ (58,764)	\$ 6,086	\$ 17,611	\$ 9,952	\$ 10,376
• Percent increase (decrease) from previous year	*	(65%)	77%	(4%)	17%
Net income (loss)	\$ (41,911)	\$ 6,290	\$ 10,392	\$ 7,439	\$ 6,301
• Percent increase (decrease) from previous year	(766%)	(39%)	40%	18%	30%
Earnings (loss) per share (a)	\$ (3.61)	\$ 0.54	\$ 0.87	\$ 0.66	\$ 0.56
• Percent increase (decrease) from previous year	(769%)	(38%)	32%	18%	17%

* Percent change exceeds 1,000%.

(a) Data for 1980, 1981, and 1982 was adjusted in 1983 for 100% stock distributions paid on June 30, 1983.

- CCI management attributes the 1985 loss to a 15% decline in revenues, significant changes in product mix, \$16.6 million of provisions for excess and obsolete inventory and spares, and \$19.3 million of costs related to a program of internal restructuring and functional consolidation. Also contributing to net losses were excessive expenses due to overly optimistic sales projections.

*Replaces Financial Update of September 1985

COMPUTER CONSOLES, INC.

- In November 1985, CCI restructured operations in order to reduce operating costs. The new structure eliminates separate business units and reorganizes marketing and distribution channels.
- CCI now markets its systems to OEMs (original equipment manufacturers), VARs (value added resellers), and office equipment resellers. CCI will continue its direct sales efforts to the Regional Bell Operating Companies and to the legal, financial services, and federal government markets.
- CCI laid off approximately 20% of its workforce between August 1985 and January 1986. Currently, CCI has approximately 1,200 employees.
- In September 1985, CCI was awarded a \$4.4 million contract for the Secretary of the Air Force Computer Assisted Information Support System, with implementation to begin in October at the Secretary of Public Affairs' office. The Air Force order includes an extensive network of POWER 5/32 systems, POWER 6/32 minicomputers, application software (including CCI's OFFICEPOWER system), and more than 200 personal computers.
- Recent orders for OFFICEPOWER systems have been received from the following law firms: Reed Smith Shaw & McClay; Locke, Purnell, Boren, Laney & McNeely; Akin, Gump, Strauss, Hauer & Feld; Arnold & Porter; Caplin & Drysdale; and the Washington D.C. office of Baker and Hostetler.
- Revenue for the three months ended March 31, 1986 was \$21.2 million, an 18% decrease from revenue of \$26 million for the same period in 1985. Net losses were \$5.6 million compared to losses of \$5.5 million for the same period in 1985.

SOURCE OF REVENUE

- Approximately 39% of CCI's 1985 revenue was derived from integrated systems sales and 21% from system rentals and maintenance services. Stand-alone hardware sales accounted for approximately 20% of revenue. The remaining 20% was derived from finance revenue associated with the leasing operations of Computer Consoles Leasing Corporation. A three-year summary of source of revenue as reported by CCI follows (\$ millions):

ITEM	FISCAL YEAR		1985		1984		1983	
			Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Sales			\$ 66.6	59%	\$ 92.2	70%	\$ 72.2	70%
Rental and Service			23.0	21	22.2	17	16.8	16
Finance			<u>22.3</u>	<u>20</u>	<u>16.7</u>	<u>13</u>	<u>14.6</u>	<u>14</u>
Total			\$ 111.9	100%	\$ 131.1	100%	\$ 103.6	100%

- Approximately 82% of 1985 revenue was derived from the U.S. The remaining 18% was derived from export sales, primarily to the U.K.

KEY PRODUCTS AND SERVICES

- CCI's POWER 5 and POWER 6 series of computers are sold as standalone hardware or can be integrated with CCI's software. CCI software families include the following:
 - DAS/CCI automates the process used by directory assistance operators in locating telephone numbers requested by a caller. DAS/CCI Version III is currently in release.
 - TELEPOWER is a family of products for the telephone industry.
 - OFFICEPOWER is a multifunctional office automation system directed to vertical markets.
 - CCI also offers various other software for its turnkey systems.
- CCI introduced POWER 5/32® in September 1985 as the newest member of CCI's POWER 5 series of minicomputers. Power 5/32 is designed primarily for office automation applications.
 - CCI's first major customer for the POWER 5/32 is the U.S. Air Force.
- CCI introduced two new members of its POWER 6/32 family of high-performance superminicomputers in April 1986.
 - The POWER 6/32E fills in the performance gap between the entry-level POWER 5/32 computer and its flagship POWER 6/32 superminicomputer. POWER 6/32E is designed to support 30 to 100 users and can be upgraded to a POWER 6/32.
 - A basic system with 4 Mbytes of memory and a 32-user UNIX System V license is priced at \$124,950.
 - The POWER 6/32MP is a multi-processor system that delivers almost twice the performance of the POWER 6/32. The POWER 6/32MP performs scientific and number crunching functions and can support a number of users.
 - Delivery will be available in the fourth quarter of 1986. A POWER 6/32MP with 16 Mbytes of memory and a 32-user UNIX license is priced at \$29,500.
- During 1985 CCI also introduced POWER 6/55™, a version of the POWER 6/32 designed to provide high-performance fault-tolerant processing for advanced computing and communications applications.

COMPUTER CONSOLES, INC.

- Software products for turnkey systems introduced during 1985 include the following:
 - DAIS II (Distributed Automated Intercept System II) uses the CCI Audio Response System to provide informational digitized voice messages to callers in the event that, for example, the telephone number they have dialed has been changed.
 - TAS (Telepower Administrative System) gathers, updates, and compiles operational statistics to help telephone company management evaluate the performance of operators and systems.
 - DAS/CCI, Version III, the new generation of CCI's Directory Assistance System, provides faster retrieval of directory assistance listings.

FINANCIAL UPDATE TO PROFILE DATED NOVEMBER 1984

COMPUTER CONSOLES, INC.
 97 Humboldt Street
 Rochester, NY 14609
 (716) 482-5000

John F. Cunningham, Chairman and CEO
 Public Corporation, AMEX
 Total Employees: 1,650
 Total Revenue, Fiscal Year End
 12/31/84: \$131,189,000

COMPUTER CONSOLES, INC.
FIVE-YEAR FINANCIAL SUMMARY
 (\$ thousands, except per share data)

ITEM	FISCAL YEAR	1984	1983	1982	1981	1980
Revenue		\$ 131,189	\$ 103,550	\$ 79,102	\$ 60,240	\$ 50,959
• Percent increase from previous year		27%	31%	31%	18%	54%
Income before taxes		\$ 6,806	\$ 17,611	\$ 9,952	\$ 10,376	\$ 8,905
• Percent increase (decrease) from previous year		(61%)	77%	(4%)	17%	35%
Net income		\$ 6,290	\$ 10,392	\$ 7,439	\$ 6,301	\$ 4,837
• Percent increase (decrease) from previous year		(39%)	40%	18%	30%	38%
Earnings per share (a)		\$ 0.54	\$ 0.87	\$ 0.66	\$ 0.56	\$ 0.48
• Percent increase (decrease) from previous year		(38%)	32%	18%	17%	26%

(a) Data for 1980, 1981, and 1982 was adjusted in 1983 for 100% stock distributions paid on June 30, 1983.

- CCI management attributes increased revenue in 1984 to increased sales of office system products, acceptance of the new Customer Name and Address System (CNA), initial shipments of the POWER6/32, shipments of the Directory Assistance System (DAS/CCI) to British Telecom, and customer lease extensions.
 - The DAS/CCI system being installed for British Telecom, valued at \$34 million, is scheduled for acceptance in late 1985 and contributed approximately \$22 million in 1984 revenue.

COMPUTER CONSOLES, INC.

- Customer lease extensions resulted from four telephone companies signing long-term lease renewals that call for upgrading to Version 3 of DAS/CCI and adding the Audio Response System. The renewals will generate revenue into 1994, with a total value of over \$90 million.
- CCI's decreases in net income and earnings per share are attributed to lower equipment margins and higher support costs associated with British Telecom revenues, more competitive margins on office systems, and higher inventory reserves. Increased expenses were incurred relating to the development, marketing, and support of office automation and the POWER6/32, and interest expenses increased due to short-term borrowing to support higher inventory levels that resulted from lower than anticipated growth.
- In January 1985 CCI's Telephony Systems Group was renamed Advanced Computer Systems. The name change reflects the decision to pursue markets in commercial audio response, telemarketing, and large fault-tolerant systems using networked data bases, although the telephone industry will continue to be the primary focus of this group.
 - The installed base of telephony systems is currently valued at more than \$300 million, and CCI is maintaining its nationwide share of over 60% of the Directory Assistance market.
 - TELEPOWER® products scheduled for delivery in 1985 include the new Distributed Automated Intercept System (DAIS II) for automating personnel-intensive intercept operations; and the Automated Business Listing System (ABL), a computerized yellow pages service.
- Recent orders for OFFICEPOWER systems have been received from Dow Jones & Company, Inc., the Chicago Board of Trade, and the California governor's office.
- Revenue for the six months ended June 30, 1985 was \$61 million, a 4% decrease from revenue of \$63.3 million for the first half of 1984. CCI experienced a net loss of \$10.1 million (\$0.89 per share) for the period compared to a net income of \$4.1 million for the same period a year ago. Before tax losses include approximately \$11 million in inventory write-downs due to lower than anticipated growth in revenue, changes in product mix, and depressed market values for various semiconductor components.

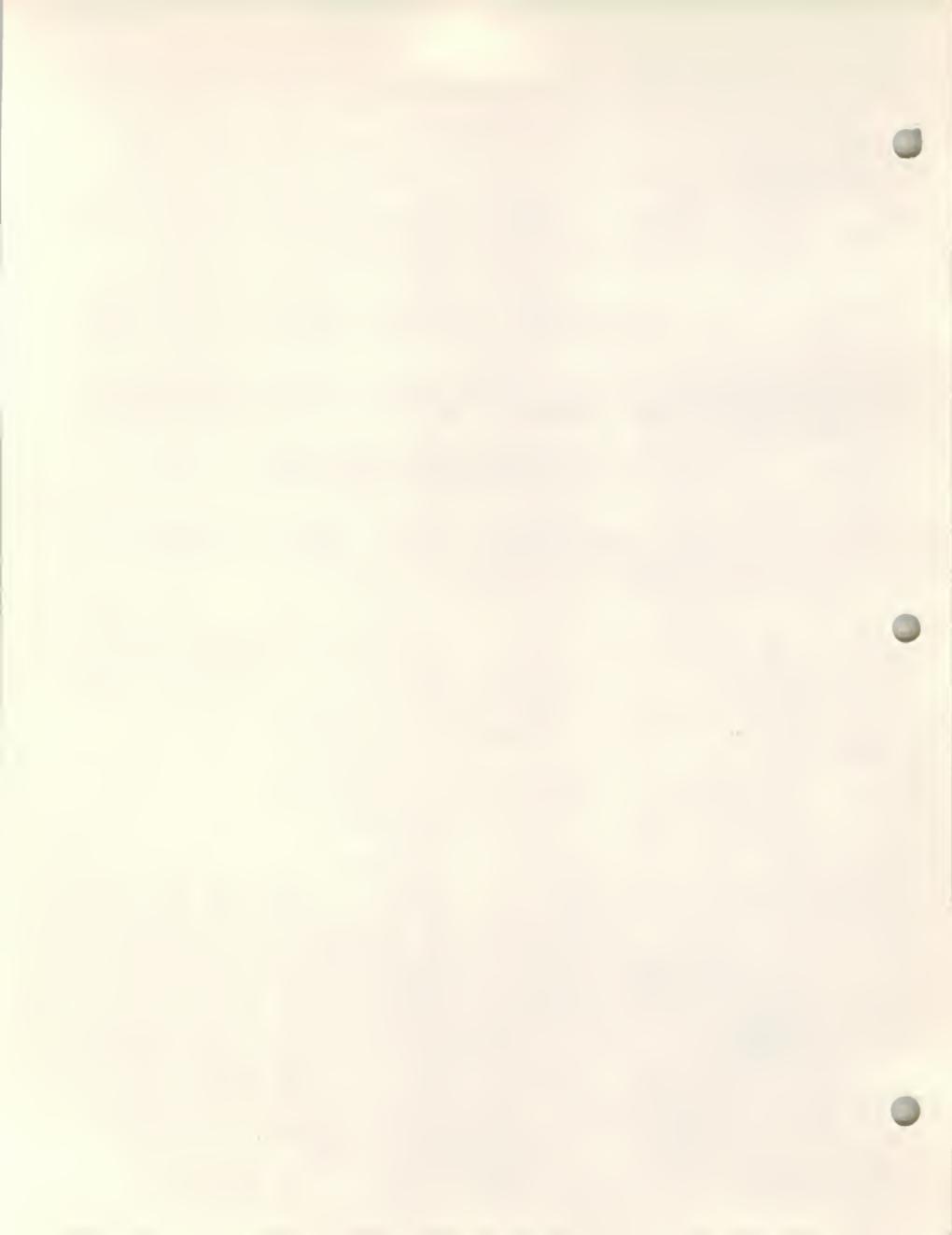
SOURCE OF REVENUE

- Approximately 71% of CCI's 1984 revenue was derived from integrated systems sales and 16% from maintenance services. The remaining 13% was derived from finance revenue associated with the leasing operations of Computer Consoles Leasing Corporation. A three-year summary of source of revenue follows (\$ millions):

COMPUTER CONSOLES, INC.

	1984		1983		1982	
	<u>Revenue</u>	<u>Percent of Total</u>	<u>Revenue</u>	<u>Percent of Total</u>	<u>Revenue</u>	<u>Percent of Total</u>
Sales and Service	\$ 114.2	87%	\$ 88.9	86%	\$ 64.8	82%
Finance	<u>17.0</u>	<u>13</u>	<u>14.6</u>	<u>14</u>	<u>14.3</u>	<u>18</u>
Total	\$ 131.2	100%	\$ 103.5	100%	\$ 79.1	100%

- Approximately 85% of CCI's 1984 sales and service revenue was derived from integrated systems for the telephone industry. Fifteen percent was derived from integrated office systems.
 - Historically, CCI derived over 90% of its revenue from AT&T and its affiliates. In 1984 over 65% of CCI's revenue was derived from AT&T and its former affiliates.
 - Approximately 20% (\$25.9 million) of 1984 revenue was derived from export sales, primarily in the U.K. Prior to 1984, export sales were not significant.



COMPANY HIGHLIGHT

COMPUTER CONSOLES, INC.
97 Humboldt Street
Rochester, NY 14609
(716) 482-5000

Herman A. Affel, Jr., Chairman and
CEO
Public Corporation, AMEX
Total Employees: 1,244
Total Revenue, Fiscal Year End
12/31/83: \$103,550,164

THE COMPANY

- Founded in 1968, Computer Consoles, Inc. (CCI) develops, manufactures, markets, and services integrated application-oriented systems for the telephone industry and (since 1983) integrated office automation systems for selected target vertical markets. During 1983 CCI achieved penetration in the legal, financial services, and government markets with its OFFICE-POWER® office automation system.
- 1983 revenue was \$103.6 million, a 31% increase over 1982 revenue of \$79.1 million. Net income was \$10.4 million, an increase of 40% over 1982 net income of \$7.4 million. In the five-year summary that follows, financials have been restated to reflect a change in the company's consolidation policy made in the fourth quarter of 1983. The new policy is to include the financial statements of CCI's finance subsidiary, Computer Consoles Leasing Corporation, in the consolidated financial statements.

COMPUTER CONSOLES, INC.

COMPUTER CONSOLES, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	1983	1982	1981	1980	1979
Revenue	\$ 103,550	\$ 79,102	\$ 60,240	\$ 50,959	\$ 33,196
. Percent increase from previous year	31%	31%	18%	54%	58%
Income before taxes	\$ 17,610	\$ 9,952	\$ 10,376	\$ 8,905	\$ 6,587
. Percent increase (decrease) from previous year	77%	(4%)	17%	35%	51%
Net income	\$ 10,392	\$ 7,439	\$ 6,301	\$ 4,837	\$ 3,505
. Percent increase from previous year	40%	18%	30%	38%	84%
Earnings per share (a)	\$ 0.87	\$ 0.66	\$ 0.56	\$ 0.48	\$ 0.38
. Percent increase from previous year	32%	18%	17%	26%	238%

(a) Adjusted for 100% stock distributions paid on June 30, 1983 and March 31, 1980.

- CCI management attributes increased revenue in 1983 to increased customer acceptance of the company's Audio Response System (an enhancement to its computerized directory assistance system, DAS/CCI), sales of office systems products, and higher service revenue due to the continued expansion of the installed base of equipment at customer locations.
- Engineering and development expenditures were \$17.2 million (17% of revenue) in 1983, \$13.9 million (18% of revenue) in 1982, and \$9 million (15% of revenue) in 1981. In addition, CCI spent approximately \$500,000, \$600,000, and \$600,000 during 1983, 1982, and 1981, respectively, which was funded in part by customers under development contracts.
- Revenue for the nine months ending September 30, 1984, was \$96.6 million, a 49% increase over the \$64.9 million for the same period in 1983. Net income for the period rose 18% from \$4.7 million in 1983 to \$5.5 million in 1984.
- During 1983 CCI was reorganized into three business groups dedicated to major markets as follows:

Advanced Computer Systems

- ~~The Telephony Systems Group~~, headquartered in Pittsford (NY), develops integrated systems for the telephone industry.

involved in currently about 100 more than \$20 million and is maintaining its market share of over 60% of the U.S. telephone market

COMPUTER CONSOLES, INC.

- The Office Systems Group, headquartered in Reston (VA), develops integrated office automation systems.
- The Commercial Products Group, headquartered in Irvine (CA), designed, developed, and now manufactures CCI's new POWER 6 series of superminicomputers.
- CCI's wholly owned subsidiary, Computer Consoles Leasing Corporation, finances the leasing operations of CCI. A second subsidiary, Computer Consoles Service Corporation, was dissolved in a tax-free liquidation into CCI on December 31, 1983.
- As of December 31, 1983, CCI had 1,244 employees. The company currently has over 1,600 employees.
- CCI competitors, by product area, include the following:
 - In the telephone industry, CCI believes it has captured approximately a 70% market share for computerized directory systems in North America. IBM's directory assistance product is CCI's closest competitor.
 - CCI has identified DEC and Data General as its closest competitors in the integrated, multifunctional, office automation system market.

KEY PRODUCTS AND SERVICES

- Approximately 86% of CCI's 1983 revenue was derived from integrated systems (82% sales and 18% maintenance services). The remaining 14% was derived from finance revenue associated with the leasing operations of Computer Consoles Leasing Corporation. Approximately 60% of CCI's installed systems have been leased. A three-year summary of sources of revenue follows (\$ millions):

	1983		1982		1981	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Sales and Service	\$ 88.9	86%	\$64.8	82%	\$51.9	86%
Finance	<u>14.6</u>	<u>14</u>	<u>14.3</u>	<u>18</u>	<u>8.3</u>	<u>14</u>
Total	\$ 103.5	100%	\$ 79.1	100%	\$ 60.2	100%

- Approximately 93% (\$82.7 million) of CCI's 1983 sales and service revenue was derived from integrated systems for the telephone industry. Seven percent (\$6.2 million) was derived from integrated office systems.

COMPUTER CONSOLES, INC.

- Hardware for CCI systems consists of the following:
 - CCI assembles terminals and controllers for terminals, communications, input/output, disks, and peripherals.
 - Magnetic tape units, printers, readers, disk drives, and other optional peripheral equipment purchased from other manufacturers are offered as part of CCI systems.
 - Most of CCI's systems incorporate a fault-tolerant design (referred to as Perpetual Processing^{T.M.}) that permits continuous system availability. This architecture enables the system to compensate automatically for the failure of individual modules by rerouting to a parallel control unit in another subsystem.
 - Historically CCI systems have incorporated central processing units purchased from other manufacturers (DEC or Sperry-Univac). In late 1982 CCI announced its own POWER 5 Computer Family of minicomputers.
 - The POWER 5 family is characterized by the expandability of the system, its ability to handle large volumes of data, and its UNIX-compatible operating system, PERPOS^{T.M.} (R)
 - The mid-range minicomputers, with expandability to include fault tolerance where required, serve as hardware support for telephone and office system products.
 - The POWER 6 Series is CCI's newest hardware series. In May 1984 CCI announced its POWER 6/32^{T.M.}, a high-performance, 32-bit, UNIX-based superminicomputer designed to enhance the speed and applications of its newest systems for telephone and office markets.
 - The POWER 6/32 is designed to compete with systems based on DEC VAX-11/785 and Data General MV/1000 superminicomputers.
 - In October 1984 CCI signed a multiyear OEM agreement with Sperry Corporation under which CCI will supply to Sperry a minimum of 200 POWER 6/32 systems annually.
 - ? In August 1984 CCI announced that it would be supplying its POWER 6/55 fault-tolerant transaction processing superminicomputer system to MCI.
- CCI's integrated systems for the telephone industry are used to automate operator services procedures that formerly were costly and slow to perform.
 - The Directory Assistance System (DAS/CCI) automates the process used by directory assistance operators in locating telephone numbers

COMPUTER CONSOLES, INC.

requested by a caller. A phonetic name search capability allows the operator to find telephone numbers when the spelling of the name is unknown.

- DAS/CCI fault-tolerant systems vary substantially in size and have handled as many as 87,800 file inquiries per hour. The average system uses approximately 250 terminals and up to eight system control units based on DEC minicomputers.
- DAS/CCI system prices range from \$800,000 to \$9 million, depending on system complexity.
- As of December 31, 1983, DAS/CCI was installed in 51 systems with 166 remote locations representing \$132 million ("if-sold" value) and involving 10,450 operator positions handling in excess of five million customer calls per day. CCI management believes its company dominates the directory assistance market, having approximately 70% of the installed systems in the U.S.
- There are currently over 51 systems with 168 remote locations.
- The Audio Response System (ARS), introduced in 1982 as an enhancement to DAS/CCI, improves operator productivity by as much as 30%.
 - After locating the desired listing, the operator need only press a single key and a digitized voice announces the number to the caller.
 - ARS prices range from \$1 million to \$5 million, depending on system complexity.
 - As of December 31, 1983, ARS was installed at 35 sites representing over \$50 million ("if-sold" value). There are currently 45 ARS installations.
- In 1983 CCI introduced TELEPOWER, a family of products for the telephone industry that provides local telephone companies with the capability of turning their listing service information into higher value, revenue-producing services.

(CNA)

 - Customer Name & Address, the first TELEPOWER system, permits a search of the Listing Service data base, using only the telephone number to retrieve the customer's name and address. This system operates on CCI POWER 5 Series and DEC hardware. *has been installed in 3 telephone operating companies*
 - Direct Customer Access (DCA), introduced in the first quarter of 1984, permits a telephone company to sell to private users search privileges for all or selected parts of its Directory Assistance data base. DCA operates on CCI's POWER Series of computers. *has been installed in two telephone operating companies*

COMPUTER CONSOLES, INC.

- Area Business List (ABL) provides private and commercial customers with information on businesses in a particular area.
- Toll Operator Position Information Computerized (TOPIC) provides toll and assistance operators with information on local toll-free numbers, call rates, domestic or international direct dial instructions, and emergency numbers.
- Other TELEPOWER systems are being developed for network data base applications in support of call switching.
- Standard turnkey systems for which the markets are saturated, but continue to generate enhancement, lease, and maintenance revenue include:
 - Plug-in Inventory Control System/Business Administration and Record System (PICS/BARS), is a management information system that maintains the order entry and inventory records of components, unit size, and software options for AT&T's installed base of private branch exchanges (PBXs). It is installed at eight central and 37 remote user sites.
 - Facilities and Equipment System (F&E), first installed in 1972, automates the storing and updating of records for trunk lines and associated central office equipment. There are approximately 24 central site installations with 19 remote locations.
 - Direct Access Intercept System (DAIS), first installed in 1973, provides operators with information on the status of telephone numbers that have changed or are no longer in service. DAIS is installed in approximately four central sites and seven remote locations.
- Special systems previously designed under contract to meet particular needs of telephone clients include the following:
 - The 800 Directory Assistance and Rate and Route Information Computerized System (800 DAS/C-RRIC) provides directory operators with toll-free "800" number information and automates records for central rate and route information operators. The product, which runs on DEC minicomputers, was developed under a contract with AT&T.
 - CCI designed the International Service Position System (ISPS) in 1980 to meet AT&T specifications under a \$10.6 million development, manufacturing, and maintenance contract. ISPS is a Perpetual Processing system using Varian minicomputers that facilitates the placing and recording of overseas calls requiring operator assistance.

COMPUTER CONSOLES, INC.

- Recent contracts for CCI integrated telephone systems include the following:
 - In April 1983 CCI announced a contract with a major telephone company for over \$17 million to replace a competitive computerized directory assistance system with DAS/CCI and ARS.
 - In May 1983 CCI announced a two-year contract (valued at \$34 million) with Standard Telephones & Cables of the United Kingdom to install at British Telecom what will be the world's largest Directory System.
*approx \$22m
of total 29 m
realized in 1981.*
- In April 1982 CCI formally introduced its OFFICEPOWER multifunctional office automation system.
 - OFFICEPOWER integrates various office functions, including word processing, electronic mail, file management, telephone messaging, appointment scheduling, and spreadsheets.
 - The system also features user programmability, allowing the development of custom applications.
 - OFFICEPOWER is UNIX-compatible and is available for CCI POWER 5/20^{T.M.}, POWER 5/30^{T.M.}, and POWER 6/32 computers.
 - CCI has focused on a vertical market approach for its OFFICEPOWER systems and has already realized market penetration in the federal government, large law firms, and financial institutions.
 - CCI has developed LAW OFFICEPOWER[®] for the legal profession. It includes legal accounting, timekeeping, and billing capabilities, and remote accessing of external data bases.
 - CCI's system for the financial market, called MONEY MANAGER, ✓ focuses on portfolio analysis and asset management.
 - The system permits access to outside financial data base services for information retrieval and provides the user with decision support and analytical tools.
 - MONEY MANAGER incorporates money management applications software licensed exclusively by CCI from Brookside Corporation.
 - MONEY MANAGER has customers in major institutions in banking, money management, and insurance, including Republic National Bank and New York Life.

COMPUTER CONSOLES, INC.

- Recent orders for OFFICEPOWER systems include the following:
 - In June 1983 CCI received a \$3.8 million contract to supply the Naval Surface Weapons Center with an Office Automation System for use by scientific, management, administrative, and clerical personnel as part of the Navy's Productivity Enhancement Project. Subsequent add-on orders have increased the total contract value to over \$7 million.
 - In October 1983 CCI received a \$1.4 million contract from the Administrative Office of the U.S. Courts to supply office automation systems to the U.S. Courts of Appeals.
 - In December 1983 CCI received an order in excess of \$1.5 million from the U.S. Department of Transportation in Washington (DC).
 - In December 1983 the company received a \$2 million order from Hale & Dorr, Boston's largest law firm. The OFFICEPOWER system includes 25 POWER 5/20 computers and 300 terminals.
 - In March 1984 CCI signed a distribution agreement with Standard Telephones & Cables of the U.K. for \$6 million in office automation systems over the next 18 months. Potential total value of the agreement, pending exercise of all options over a four-year period, is in excess of \$53 million.
 - In July 1984 CCI announced that its OFFICEPOWER systems will be distributed in Canada by Telecommunications Terminal Systems of Toronto under a three-year, \$7 million agreement.
- Other OFFICEPOWER customers include Best Products, Fleming Foods, the U.S. Air Force, the U.S. Army, and Citibank (Person-to-Person division).
- In November 1984 CCI introduced CCI PC, the company's first desktop personal computer.
 - CCI states it brought the product to market not to compete in the standalone market but to address the needs of the desktop computer user while at the same time offering the use of its OFFICEPOWER system.
 - CCI PC is hardware and software compatible with the IBM PC.
- CCI provides maintenance services to its clients from 85 service locations throughout the U.S. and Canada. The company currently employs over 200 customer service representatives.

COMPUTER CONSOLES, INC.

INDUSTRY MARKETS

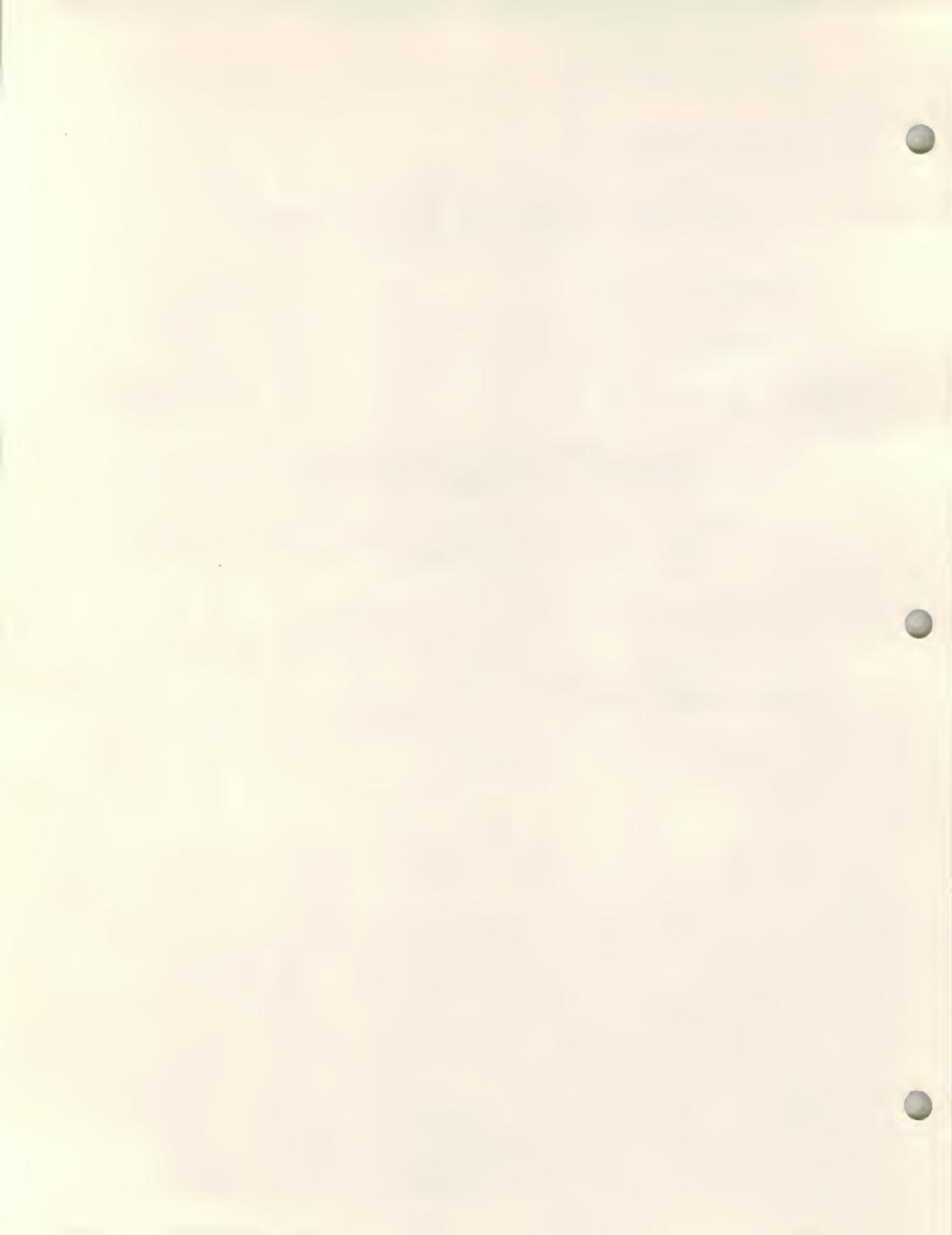
- Historically CCI has derived substantially all of its revenue from the telephone industry. For 1983, 1982, and 1981, over 90% of the company's revenue was derived from AT&T and its affiliates. CCI also markets its office automation systems to the federal government, large law offices, and the financial industry.

GEOGRAPHIC MARKETS

- Approximately 98% of CCI's 1983 revenue was derived from the U.S. The remaining 2% was derived from Canada, the U.K., and Israel.
- The company's products are sold in the U.S. to end users through 25 sales offices.
 - Telephony Systems Group sales offices are located in Atlanta, Birmingham, Boston, Chicago, Cleveland, Denver, Omaha, Parsippany (NJ), Philadelphia, Poughkeepsie (NY), San Francisco, and St. Louis,
 - Office Systems Group sales offices are located in Atlanta, Boston, Chicago, Dallas, Denver, Houston, Long Beach and San Mateo (CA), New York City, Philadelphia, Phoenix, Reston (VA), Rochester (NY), Seattle, and Washington (DC).
- ITT markets CCI's telephone systems outside the U.S.
- Customer service offices are located in 83 U.S. and two Canadian cities.

COMPUTER HARDWARE AND SOFTWARE

- CCI maintains DEC PDP-11s and also has its POWER 5 and POWER 6 systems installed for development purposes.



FINANCIAL UPDATE TO HIGHLIGHT DATED OCTOBER 1981

COMPUTER CONSOLES, INC.
 97 Humboldt Street
 Rochester, NY 14609
 (716) 482-5000

Herman A. Affel, Jr., Chairman
 Vaemond H. Crane, President
 Public Corporation, AMEX
 Total Employees: 1,061
 Total Revenue, Fiscal Year End
 12/31/82: \$63,280,049

COMPUTER CONSOLES
FIVE-YEAR FINANCIAL SUMMARY
 (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	1982	1981	1980	1979	1978
Revenue	\$ 63,280	\$ 50,674	\$ 44,150	\$ 28,072	\$ 17,551
• Percent increase from previous year	25%	15%	57%	60%	10%
Income before taxes	\$ 1,520	\$ 5,523	\$ 6,264	\$ 5,057	\$ 1,093
• Percent increase (decrease) from previous year	(72%)	(12%)	24%	363%	8%
Net income	\$ 7,439	\$ 6,301	\$ 4,837	\$ 3,505	\$ 1,222
• Percent increase from previous year	18%	30%	38%	187%	54%
Earnings per share	\$ 1.31	\$ 1.12	\$ 0.96	\$ 0.75	\$ 0.31
• Percent increase from previous year	17%	17%	28%	142%	35%

SOURCE OF REVENUE

- The majority of Computer Consoles' 1982 revenue was derived from turnkey systems sales.



COMPANY HIGHLIGHT

COMPUTER CONSOLES, INC.
97 Humboldt Street
Rochester, NY 14609
(716) 482-5000

Herman A. Affel, Jr., President
Public Corporation, AMEX
Total Employees: 823
Total Revenue, Fiscal Year End
12/31/80: \$44,149,592

PRINCIPAL BUSINESS

- Computer Consoles, Inc. (CCI), founded in 1968, develops, manufactures, markets, and services turnkey systems for the telephone industry.
- In October 1980, CCI completed a public stock offering of 475,000 common shares which generated \$8.9 million in net proceeds. The proceeds were used to retire CCI's short-term bank debt.
- The company began trading on the American Stock Exchange in July 1981. CCI stock formerly was traded Over the Counter.

FINANCIALS (\$ thousands, except per share data)

ITEM	FISCAL YEAR	1980	1979	1978	1977	1976
Revenue		\$44,150	\$28,072	\$17,550	\$15,961	\$ 8,435
• Percent increase from previous year		57%	60%	10%	90%	-
Net income		\$ 4,837	\$ 3,505	\$ 1,222	\$ 794	\$ (550)
• Percent increase (decrease) from previous year		38%	187%	54%	244%	-
Earnings per share*		\$ 0.96	\$ 0.75	\$ 0.31	\$ 0.23	\$ (0.33)
• Percent increase (decrease) from previous year		28%	142%	35%	170%	-

* Per share figures have been adjusted to reflect the 100% stock distribution which took place on March 31, 1980.

- Higher revenue in 1980 was the result of sales related to the DAS/CCI product line, International Service Position System, and CCI's new PICS/BARS system.

COMPUTER CONSOLES, INC.

- CCI revenue and net income for the nine months ended September 30, 1981 were \$33.4 million and \$3.6 million, respectively.

ACQUISITIONS

- In February 1981, CCI acquired all of the outstanding shares of RLG Corporation in exchange for 45,000 shares of CCI common stock. A privately held software product firm located in Reston, VA, RLG had approximately \$2 million in 1980 revenue and will operate as a wholly owned subsidiary of CCI.
- In October 1981, CCI acquired a 66% interest in the Time Machine Ltd., a firm engaged in minicomputer development. The Time Machine, with 25 employees, is located in Haifa, Israel and has no operating revenue to date. The remaining 34% equity interest in the company is shared by Israeli management and a Swiss investor.
 - CCI intends to manufacture the minicomputer, to be used in CCI turnkey products, in both New York and Israel for marketing in North America and Europe.

SUBSIDIARIES

- Computer Consoles Leasing Corporation (CCLC), a wholly owned unconsolidated subsidiary, finances leasing operations. CCI systems are generally leased long-term, rather than sold.
- Computer Consoles Service Corporation (CCSC), a wholly owned consolidated subsidiary, services and maintains virtually all of the company's systems.

EMPLOYEES

- CCI's 823 employees are distributed as follows:

- Marketing and field service	358
- Manufacturing	193
- Research and development	197
- General and administrative	<u>75</u>
	823

COMPETITORS

- CCI considers itself to be the leading vendor of computerized directory assistance systems. An IBM (General Systems Division) product is the strongest competitor to the DAS/CCI system. Other companies with a minor share of this market include Lockheed, Tele/Sciences, and Delta Resources.

SOURCES OF REVENUE

77% Turnkey systems.
23% Professional services.

PRODUCTS AND SERVICES

- CCI turnkey file management systems are marketed to the telephone industry. CCI's expertise lies in designing data base software for large data bases and in the high reliability of its systems.
 - Perpetual Processing^{T.M.} is a design feature used in several CCI systems that permits continuous system availability. High reliability is achieved by the interconnection of two to eight parallel system control units, each containing multiple data base copies. If one or more system components fail, these functions can be routed to a parallel control unit in another subsystem.
 - CCI systems are easily upgraded. Additional hardware may be attached to a system while it is in operation, without changing or adding software.
- Standard CCI turnkey systems include:
 - Directory Assistance System (DAS/CCI), first installed in 1977, automates the locating of names and telephone numbers by information operators. A phonetic search capability enables the operator to search for similar-sounding names. DAS/CCI stores several million telephone listings which can be accessed by hundreds of operators in both central and remote sites. Response time ranges from 0.5 to 1.5 seconds.
 - The average system uses approximately 200 terminals and up to eight system control units based on DEC minicomputers. DAS/CCI is a Perpetual Processing system. Prices range from \$800,000 to \$7 million, depending on system complexity. DAS/CCI is currently installed at 36 central sites and 107 remote sites.
 - Sales and leases of DAS/CCI systems contributed 74%, 83%, and 59% of CCI revenue in 1978, 1979, and 1980, respectively.
- Plug-in Inventory Control System/Business Administration and Record System (PICS/BARS) was developed jointly by CCI and Bell Laboratories. First installed in the winter of 1980, PICS/BARS is a management information system that maintains the order entry and inventory records of components, unit size, and software options for AT&T's installed base of private branch exchanges (PBXs).
 - PICS/BARS uses Varian minicomputers and is installed in 19 central and 86 remote sites. Prices range from \$500,000 to \$1 million.
 - PICS/BARS sales contributed \$2.1 million to 1980 revenue.

COMPUTER CONSOLES, INC.

- Toll Operator Position Information Computerized (TOPIC) provides operators with information on local toll-free numbers, call rates, domestic or international direct dial instructions, and emergency numbers. TOPIC, introduced late in 1980, uses DEC minicomputers and may be installed in conjunction with existing DAS/CCI systems.
- The 800 Directory Assistance and Rate and Route Information Computerized System (800 DAS/C-RRIC) provides directory operators with toll-free "800" number information and automates records for central rate and route information operators. The product, which runs on DEC minicomputers, was developed under a contract with AT&T and will be marketed to AT&T affiliates. CCI expects this system to complement its TOPIC product in the future.
- Standard turnkey systems for which the markets are saturated, but continue to generate enhancement, lease, and maintenance revenue include:
 - Facilities and Equipment System (F&E), first installed in 1972, automates the storing and updating of records for trunk lines and associated central office equipment. There are approximately 24 central site installations with 19 remote locations.
 - Direct Access Intercept System (DAIS), first installed in 1973, provides operators with information on the status of telephone numbers which have changed or are no longer in service. DAIS is installed in approximately nine central sites and 20 remote locations.
- CCI designed the International Service Position System (ISPS) in 1980 to meet AT&T specifications under a \$10.6 million development, manufacturing, and maintenance contract. ISPS is a Perpetual Processing system using Varian minicomputers that facilitates the placing and recording of overseas calls requiring operator assistance. CCI derived \$10.1 million in professional services revenue in 1980 from this contract. Approximately seven systems have been installed.
- In August 1981, CCI introduced Office Power^{T.M.}, an office automation system available as either a software package or on a turnkey basis. Office Power is an enhanced version of a product developed by RLG and will use CCI's Perpetual Processing capability.
 - Automated features include an appointment calendar, tickler file, address and telephone directories, telephone call log, desk calculator, electronic mail, word processing, and electronic filing.
- EMAP (Environment for Managing ATLAS Programs), a software package developed by RLG, is currently being marketed by CCI. EMAP reduces the time required to write and test programs used in Automatic Test Equipment for testing military-type systems. The package integrates ATLAS development tools, communication functions, and managerial resources. EMAP is also available on a turnkey basis.

COMPUTER CONSOLES, INC.

- Voice Response, an enhancement to DAS/CCI, is being developed by CCI for marketing in 1982. The system allows the computer to respond vocally to a caller with the correct number, enabling the information operator to receive another call.
- In November 1981, AT&T selected CCI to develop a new generation of directory assistance systems (2A DAS/CCI) for use by Bell Telephone companies. Initial system installations are planned for 1983.

INDUSTRY MARKETS

- CCI markets its products to the telephone industry.
 - Over 90% of the company's revenue in 1980, 1979, and 1978 was from sales to affiliates and subsidiaries of AT&T.

GEOGRAPHIC MARKETS

- An estimated 90% of 1980 revenue was derived domestically. The remaining 10% of revenue was from international sales in Canada and Australia.
 - Systems sold outside of the U.S. are marketed through ITT.
- CCI headquarters are in Rochester, NY. Corporate marketing is in Pittsford, NY.
- Branch offices are located in Birmingham; San Francisco and Woodland Hills, CA; Denver; Atlanta; Chicago; Indianapolis; New Orleans; Columbia, MD; Boston; Minneapolis; Jackson, MS; St. Louis; Lincoln and Omaha, NE; Somerset, NH; Cleveland and Columbus, OH; Philadelphia; Nashville; San Antonio; Dallas; Houston; and Washington DC.
 - Additional field service offices are located nationwide, with two offices in Canada.

COMPUTER HARDWARE AND SOFTWARE

- CCI maintains DEC PDP-11s, -34s, and -44s for development purposes.



COMPANY HIGHLIGHT

COMPUTER CONSOLES, INC.
97 Humbolt Street
Rochester, New York 14609
(716) 482-5000

Herman Affel, President and
Chairman
Public Corporation, closely held
Total company sales as of FY
ending 12/75: \$8,400,000
Computer Services sales 12/75:
\$4,000,000 E

NUMBER OF EMPLOYEES engaged in computer services: 300

KEY PRODUCTS/SERVICES: CCI markets turnkey data management systems, primarily to telephone companies. Specific products include:

- DAIS, Direct Access Intercept System
- DAS, Directory Assistance System
- DACIS, Direct Access Computer Information System
- DALARS, Direct Access Local Assignment Record System
- COPS, Circuit Order Preparation
- Facilities and Equipment System
- CCBRS, Centralized Credit Bureau System
- Insurance Application Record Keeping
- Blood bank donor records, marketed through subsidiary IMI
- 800 Number Automated System, marketed through subsidiary IMI

As a supplier of turnkey products, CCI provides both the hardware and software to users. Only the software is regarded as part of the computer services industry. The total systems usually consist of a computer data base control unit, with disk or tape storage, and a variety of input-output devices such as cathode ray tubes, printers, paper tape readers and punches, and card readers. Multiplexers, data sets, communications controllers and adapters are used as interfaces for both local and remote system configurations. In addition, CCI provides maintenance on their system.

APPLICATIONS: Major applications are designed for traffic departments of telephone companies:

- Directory assistance
- Intercept for disconnected numbers
- Telephone trunk assignment
- Circuit and cable assignment
- Customer information file
- Blood donor records
- Insurance record keeping

INDUSTRY MARKETS: Data management systems are leased primarily to telephone utility companies. A few blood banks and insurance companies are also users.

COMPANY HIGHLIGHT/COMPUTER CONSOLES, INC.

GEOGRAPHIC MARKETS: Telephone company and other users are located throughout the U.S.; however, revenues for services are concentrated in the Northeast region. Business is equally distributed among the New England, North Central, Southeast and South Central regions. In addition to Rochester, branch offices are located in:

- Atlanta, Georgia
- Newark, New Jersey
- Birmingham, Alabama
- Kansas City, Missouri
- Chicago, Illinois
- San Francisco, California
- Denver, Colorado

There are field engineering offices in addition to these.

COMPUTER HARDWARE AND SOFTWARE:

- 12 DEC PDP-11s, with customized software
- 73 Varian 620-L Series, with customized software

OVERALL ASSESSMENT AND TRENDS: CCI got off to a slow start when it was founded in 1968 as an equipment manufacturer. Its first data management system was marketed in 1974 and that is when the company experienced excellent growth. Total sales for 1973 were \$5,472,242 and for 1974 they were \$9,208,484; an increase of 68% in one year. Sales were down for 1975, which President Affel attributes to the economic recession. Despite the decrease in sales CCI remained profitable in 1975, based on the preliminary figures available to management. CCI's bank, Marine Midland, was willing to extend a new line of credit about the end of November, 1975. The company has developed a good reputation within the Bell System for quality and good service and has been written up in several Telephone Company publications. Its main weakness is its high dependence upon Ma Bell as a source of income. CCI has begun taking steps to correct this, such as by offering ITT marketing rights to its services overseas and by developing plans to expand into banking and other public utilities, as well as blood banks.

now
Cycare
systems

COMPANY HIGHLIGHT

COMPUTER CONSULTING SERVICES INC.
Dubuque Building, Suite 520
Dubuque, IA 52001
(319) 556-3131

Jim H. Houtz, President
Private corporation
Total employees: 120
Total revenues, fiscal year
end 12/31/76: \$7,200,000

THE COMPANY

- Computer Consulting Service, Inc. (CCS) was founded in 1968 by President Jim Houtz as a service bureau offering general business and utility processing for local businesses. In 1970, it began to specialize in clinical processing. The company now offers remote batch and interactive remote computing services to approximately 140 clients, primarily doctor's clinics.
- Revenues grew 20% from \$6 million in fiscal 1975 to \$7.2 million in fiscal 1976.
- A tentative merger agreement between CCS and Computer Medical Corporation of Spokane, Washington was reached according to a September 13, 1977 press release. Final agreement is subject to approval of the stockholders and Boards of Directors of the companies, both privately held. Computer Medical, with fiscal 1976 revenues of \$1.8 million, serves medical groups in 22 states.
- CCS's major competitors include Science Dynamics, Edelman Systems, MEDITECH, Shared Medical Systems, and Medical Computer Systems.
- The firms 120 employees break down as follows:
 - Operations 50
 - Marketing 30
 - Sales 10
 - Support 20
 - Computer services 20
 - Administration 20

KEY PRODUCTS AND SERVICES

- CCS offers only processing services. Approximately 95% of revenues are generated by remote batch processing for medical and doctors' clinics. These services are being migrated to interactive remote computing services which now generate a small percentage of total revenues. Of the remaining revenues, less than 1½% derives from batch processing and approximately 2% from on-line, computer-assisted electrocardiogram (ECG) services for mobile heart stations.

COMPANY HIGHLIGHT/COMPUTER CONSULTING SERVICE, INC.

- The remote batch services have on-line key to diskette data entry utilizing IBM 3741 floppy diskette equipment. These services are being converted remote batch to interactive; the first interactive systems will be installed during the second half of 1977. The services are approximately 55% third party billing--CHAMPUS, Medicare, Blue Shield, and Medicaid; and 40% patient billing.
 - The primary interactive product is COMET. It includes patient registration, insurance processing, payroll, accounts payable, accounts receivable, and patient billing.
 - The services include key-to-diskette and interactive data entry over telecommunications lines. The company installs terminals at customer clinic locations for data entry.
- CCS recently introduced a turnkey system for computer-assisted ECG analysis. The system gives the doctor a direct link between the ECG machine and CCS's main computer.
 - The doctor also has an on-site CRT or teleprinter terminal for further analysis and "over-reading"--entering or changing data--on the ECG. Output is through the CRT or teleprinter terminal via leased lines.
 - The system allows on-line file updates and new file creation. All clients have separate data bases which management claims are fully secured.
 - The first system was installed in 1976. CCS management expects eight additional ECG systems to be installed during 1978.
- A small amount of business is still generated by general business services to local commercial clients. Services include standard accounting packages.

APPLICATIONS & INDUSTRY MARKETS About 98% of CCS revenues derive from specialty services with medical applications. The remaining 2% come from general business services to early clients. Doctors' clinics, rather than hospitals or physicians, produce the majority of revenues.

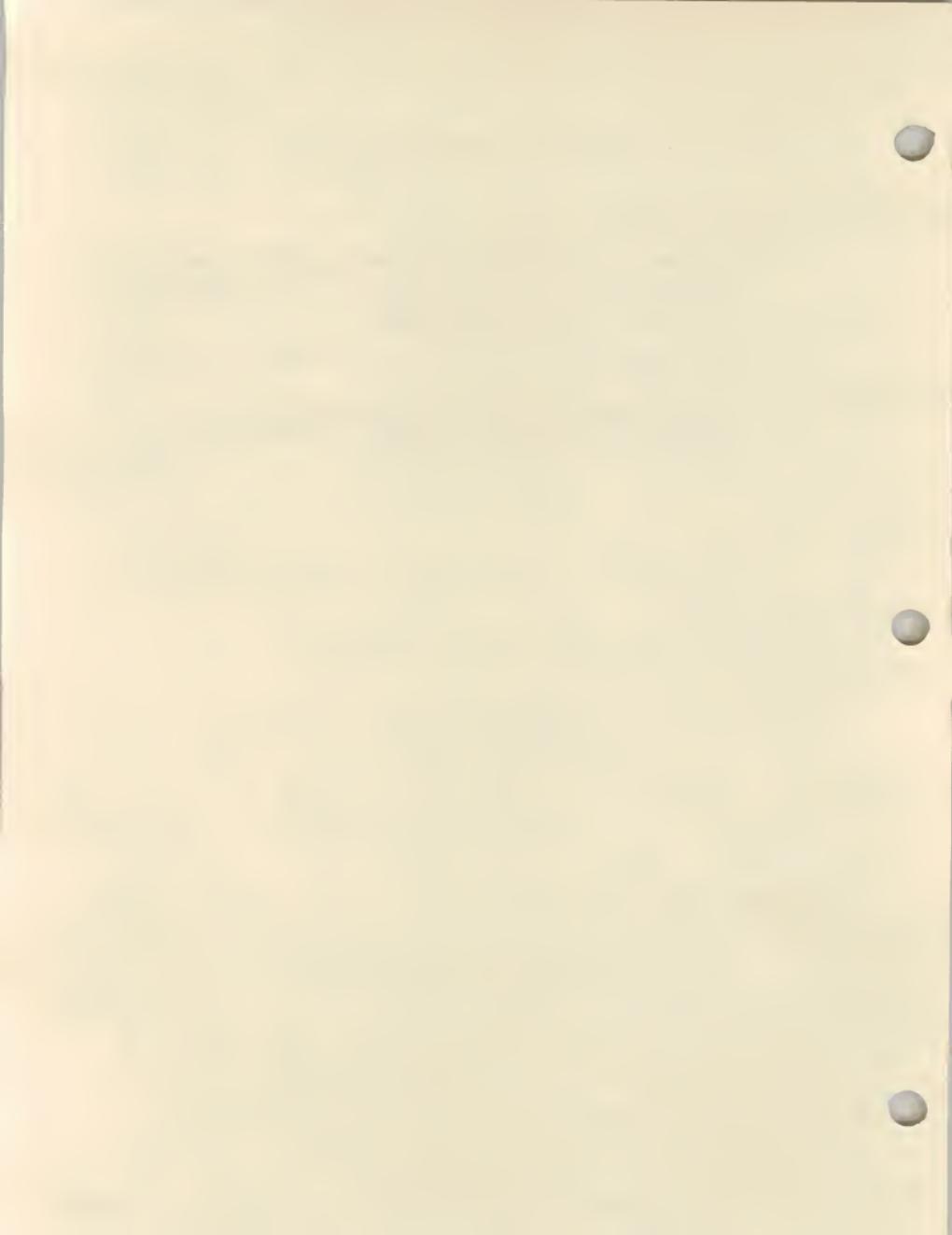
GEOGRAPHIC MARKETS

- Nearly 65% of CCS's revenues are derived from the Midwest and North Central states. The rest are evenly distributed between the Mountain, Pacific, and Southeastern regions.
- Branch offices are located in Atlanta, GA; Chicago, IL; and San Francisco, CA.

COMPANY HIGHLIGHT/COMPUTER CONSULTING SERVICE, INC.

COMPUTER HARDWARE AND SOFTWARE

- The company has one IBM 370/155 and one IBM 360/65 in Dubuque. The operating systems are Pansophic and DOS/MVT. CCS uses Cincom's TOTAL as its data management software. The 160 IBM 3741 diskettes are used for data entry.
- The network consists of OUT-WATS (for polling hospital terminals) and leased lines.
- CCS' new interactive services will use leased lines for file creation and maintenance. The company claims that all data bases are secure and none are shared.



COMPANY PROFILE

COMPUTER CORPORATION OF AMERICA

Four Cambridge Center
Cambridge, MA 02142
(617) 492-8860

Richard D. Stewart, President and CEO
Private Corporation
Total Employees: 240
Total Revenue, Fiscal Year End
6/30/90: \$31,500,000

The Company

Computer Corporation of America (CCA) develops, markets, and supports applications development systems software. The company's product line, the Advantage Series, is targeted to business and government agencies that require very rapid implementation of complex, data-intensive, on-line applications together with speed in information processing.

The Advantage Series reflects a three-part CCA corporate strategy that combines:

- An adaptable underlying technology that builds flexibility into the product line for future product evolution
- A focus on applications, customizing the Advantage Series to the demands of individual industries, including direct mail, retail, and financial services
- A range of customer support services

CCA was originally founded in 1965 as a product development library for the Department of Defense. Its first commercial software products were introduced in 1980.

- In 1984, CCA was acquired by Toronto-based Crownx, Inc.
- In October 1988, the company executed an equity buy out of its commercial division from Crownx, transferring 45% stock ownership to CCA employees. Crownx currently retains a 45% interest in CCA.

CCA's fiscal 1990 revenue reached \$31.5 million, an 11% increase over fiscal 1989 revenue of \$28.4 million.

Competitors include Teradata, IBM, Ingres, Sybase, Computer Associates, Software AG, and Cincom.

Key Products and Services

Approximately 45% of CCA's fiscal 1990 revenue was derived from software products, 41% from software maintenance services, and 14% from custom development, consulting, and training professional services.

CCA currently has more than 750 customers and 1,500 system installations worldwide.

The Advantage Series is an integrated family of fourth-generation language-based information management software products for the development and implementation of large applications.

- The Advantage Series runs on the IBM S/370 and ES/9000 family of computers operating under MVS/XA, ESA, VM, or VSE/SP.
- Components include the following:
 - User Language is CCA's fourth-generation language.
 - MODEL 204 is a high-performance data base management system.
 - Horizon is a distributed and cooperative programming environment.
 - Imagine is an end-user query and report writer.
 - Workshop/204 is a subsystem of integrated facilities that general User Language code and systems commands necessary for applications creation and systems maintenance.
 - PC/204 is a micro-mainframe software link.
 - MAIL 204 is CCA's proprietary electronic mail system.
 - TEXT/204 provides text management for on-line document storage and retrieval.
 - Datafox is a data base marketing and customer service system for the telecommunications industry. The product was jointly developed by NYNEX and CCA.

CCA's Professional Services Group focuses on five specific areas:

- Performance tuning, in which CCA consultants assist software customers to more effectively use CCA's products

- Rapid iterative development, a CCA technique using working prototypes to develop applications
- Marketing information systems, applying data base technology to customer analysis to help customers implement CCA's MarketPulse software
- Text retrieval, developing and implementing text management and analysis technology
- Connectivity to workstations, where CCA helps design and implement cooperative processing applications.

Industry Markets

CCA targets its products to clients that require very rapid implementation of complex, data-intensive, on-line systems. The majority of CCA's clients are in the petroleum, retail, banking, and transportation industries.

Customers include The World Bank, General Foods, Nielsen Media Research, Konica Corporation, General Dynamics, NASA, and New York State Department of Education.

Geographic Markets

Approximately 78% of CCA's fiscal 1990 revenue was derived from the U.S. and 22% was derived from international sources.

In addition to its headquarters in Cambridge (MA), CCA has U.S. offices in Chicago (IL), Dallas and Houston (TX), Detroit (MI), Denver (CO), Mountain Lakes (NJ), San Francisco and Santa Monica (CA), and Washington, D.C.

CCA supports customers in 20 countries throughout Europe and the Far East. CCA's international headquarters is located in Maidenhead (England). The company also has an office in Toronto (Canada).



COMPANY PROFILE

COMPUTER CORPORATION OF AMERICA

Four Cambridge Center
Cambridge, MA 02142
(617) 492-8860

Ken Draeger, CEO
Wholly Owned Subsidiary of Cowntek,
Inc.
Total Employees: 475
Total Revenue, Fiscal Year End
12/31/85: \$40,000,000

THE COMPANY

- Computer Corporation of America (CCA) was founded in 1965 to develop advanced data base management systems (DBMS) software. In its first 15 years, the company focused primarily on the design and implementation of custom, large-scale data base systems.
- During 1980 CCA's Software Products Division was formed to market its MODEL 204 data base management product.
- CCA was acquired by Toronto-based Cowntek in April 1984 and expanded its product line to include end-user computing and application development software systems.
- CCA currently provides advanced data base research and custom data base system design professional services and systems software products.
- Total revenue increased 32% from \$30.3 million in 1984 to \$40 million in 1985. Noncaptive revenue represented 100% of 1985 revenue compared to 87% in 1984. A five-year revenue summary follows:

COMPUTER CORPORATION OF AMERICA
FIVE-YEAR REVENUE SUMMARY
(\$ thousands)

ITEM	FISCAL YEAR	1985	1984	1983	1982	1981
Total revenue		\$40,000	\$30,346	\$21,900	\$12,600	\$10,072
• Percent increase from previous year		32%	39%	74%	25%	43%
Noncaptive revenue		\$40,000	\$26,346	N/A	N/A	N/A
• Percent increase from previous year		52%	N/A	N/A	N/A	N/A

COMPUTER CORPORATION OF AMERICA

- Research and development expenditures were approximately 14% of 1985 revenue.
- In April 1986 CCA acquired Multiplications Software, Inc. of Cambridge (MA) for \$3.5 million. Multiplications Software's products include Accolade, a COBOL application generator, and Imagine, a forms-driven information retrieval and reporting system.
- CCA is organized into two divisions:
 - The Software Products Division provides data base management systems and products for improving productivity over the life cycle of information systems. The division accounted for approximately 75% of 1985 revenue.
 - The Research and Systems Division conducts advance funded research and provides custom software development professional services. This division accounted for approximately 25% of 1985 revenue.
- As of December 31, 1985, CCA had 475 employees, segmented as follows:

Marketing/sales	10%
Research and systems	27
Commercial product development	18
Support	40
General and administrative	5
	100%

- Currently, CCA has 526 employees.
- Major competitors include IBM, Cullinet, Applied Data Research, Software AG, and Cincom.

KEY PRODUCTS AND SERVICES

- Approximately 75% of 1985 revenue was derived from software products. The remaining 25% was derived from professional services.
- CCA's primary software product is MODEL 204, a data base management system first released in 1971.
 - WORKSHOP/204, a subsystem of MODEL 204, is an integrated set of interactive programmer productivity tools for dictionary-driven application development, prototyping, and maintenance. WORKSHOP/204's tools include the following:
 - User Language, CCA's fourth generation language and the centerpiece of WORKSHOP's facilities.
 - A forms-driven data base definition facility.

- An automatic screen and program generator.
- A screen painter.
- An editor.
- A query update facility for prototyping and preparing test data.
- An interactive, symbolic debugging facility.
- An umbrella environment that integrates WORKSHOP's tools.

- PC/WORKSHOP, an optional extension to WORKSHOP/204, allows programmers to develop mainframe data base application programs on a PC workstation. PC/WORKSHOP includes communications software to link it with the mainframe and WORKSHOP/204 emulation software that allows the PC to use other WORKSHOP/204 facilities.
 - PC/WORKSHOP requires an IBM PC, PC/XT, or PC/AT with 256 Kbytes memory, running PC-DOS or MS-DOS operating systems. It also requires MODEL 204 DBMS running WORKSHOP/204 on the mainframe, under OS, DOS, or VM operating systems.
- PC/204, an extension to MODEL 204, is a micro-to-mainframe link. PC/204 includes an asynchronous communications link and allows use of a PC to:
 - Instantly retrieve selected data from the mainframe MODEL 204 data base and load it into a PC spreadsheet or data base system.
 - Upload data to the mainframe for controlled MODEL 204 data base updating.
 - Tap mainframe storage as a virtual directory, expanding the PC's disk capacity.
 - Transform a PC into an IBM terminal via software-based 3270 emulation.
- ACCESS/204 is a decision support query and report writing tool. ACCESS/204 is menu driven and syntax-free and allows nontechnical users to scan their corporate data bases, select specific data, and reformat the data into reports.
- PICTURE/204 enables users to store and retrieve digitized pictures in a MODEL 204 data base. It uses CCA's PC/204 micro-mainframe link to selectively upload and download character and numeric data integrated with image data for display and manipulation on a PC.
- TEXT/204 is an optional on-line document storage, search, and retrieval enhancement for MODEL 204. TEXT/204 provides full screen user interfaces with menus, prompts, and on-line help, and allows multiple users to read the same documents concurrently. TEXT/204

allows users to refine search criteria interactively and to create and update indices of key words. CCA states TEXT/204 is the only document and storage retrieval product on the market with on-line edit and real-time update.

- MAIL/204, introduced in 1978 as COMET, is an optional electronic mail system enhancement for MODEL 204. English language commands allow users to read and answer messages, forward messages to other subscribers, file and retrieve messages, and compose and edit text.
- Imagine, acquired with Multiplications Software in 1986, is a forms-driven information retrieval and reporting system. It operates under CICS for DOS and VM, and supports access to data in VSAM, IMS, and other external data bases, as well as MODEL 204.
- Accolade, also acquired with Multiplications Software in 1986, is an integrated COBOL program generator. The more recent release of the product includes a full-function PC version, making it the only COBOL program generator to run on both IBM mainframes and PCs. Accolade operates identically under MVS, DOS, and PC-DOS.
- ProdNet is a family of data communications products that combines local area networking with mainframe SNA technology, allowing an organization to connect PCs into LANs, link the LANs to a mainframe host, and integrate 3270 and remote job entry terminals. ProdNet consists of three products, as follows:
 - Port is an advanced networking environment for connecting IBM PCs, ATs, XTs, and compatibles into departmental networks.
 - Micro ProdNet consists of a suite of network applications, including electronic mail, calendaring, and filing.
 - Host ProdNet is a series of applications that manage and secure connections between micro networks and corporate data processing resources.
- DB Designer, a graphics-oriented workstation for data base designers, provides an interactive environment for specifying and experimenting with data base structures and designs. Release is scheduled for the fourth quarter of 1986.
- MODEL 204 operates on IBM mainframes (360/370, 303X, and 4300 series) and plug-compatible mainframes running OS, DOS, or VM/CMS operating systems. MODEL 204 has its own teleprocessing monitor or can be accessed through CICS or TSO. Interfaces are provided for COBOL, PL/I, FORTRAN, and Assembler languages.
- Pricing for MODEL 204 and related products are shown in the exhibit.

COMPUTER CORPORATION OF AMERICA

EXHIBIT

COMPUTER CORPORATION OF AMERICA
SOFTWARE PRODUCTS

PRODUCT NAME	OPERATING ENVIRONMENT	YEAR INTRODUCED	NUMBER INSTALLED	PRICING
MODEL 204	MVS, DOS, CMS	1971	500	\$125,000-\$200,000
WORKSHOP/204	MVS, DOS, CMS	1984	100	\$40,000-\$130,000
PC/WORKSHOP	PC-DOS	Q4 - 1985	100 (CPUs)	\$7,000 Mainframe, \$500/PC or \$35,000 Site License
PC/204	PC-DOS	1984	1,000 (CPUs)	\$7,000 Mainframe, \$500/PC or \$50,000 Site License
ACCESS/204	MVS, DOS, CMS	1984	130	\$20,000-\$50,000
PICTURE/204	MVS, DOS, CMS	Q4 - 1986	N/A	\$30,000 Mainframe \$800-\$950/PC
TEXT/204	MVS, DOS, CMS	Q4 - 1986	N/A	\$47,000
MAIL/204	MVS, DOS, CMS	1978	70	\$7,000-\$15,000
imagine	MVS, DOS, CICS	1984	60	\$30,000-\$60,000
Accolade	DOS, MVS under CICS	1982	75	\$55,000-\$125,000
Accolade/PC	PC-DOS	1986	N/A	\$50,000 Site License or \$10,000 for Ten Workstations
ProdNet	Port	1986	750 (CPUs)	Host: \$25,000-\$45,000 Micros: \$1,695/Server \$790/PC

- CCA's Research and Systems Division (R&S) provides advanced funded research and development, and builds custom software systems. R&S concentrates in four key areas including distributed data bases, graphic interfaces, very large data bases, and query languages.
 - R&S Division's current list of active projects include the following:
 - Multibase is a query facility for distributed data bases over heterogeneous hardware and data base software.
 - ADAPLEX is a functional data model with query facility written for the ADA language.
 - SDMS (Spatial Data Management System) is an advanced graphics system that represents data graphically, in the data base and to the user.
 - CCDBMS is DBMS adapted and configured for managing CAD/CAM data.
 - PROBE is a system combining artificial intelligence and DBMS technology.

INDUSTRY MARKETS

- Approximately 30% of 1985 revenue was derived from the federal government. The remaining 70% was derived from professional services and software products provided across all industry sectors.
 - CCA targets Fortune 1000 sized commercial and government organizations.

GEOGRAPHIC MARKETS

- Approximately 92% of 1985 revenue was derived from the U.S. The remaining 8% was derived from international sales.
- U.S. branch offices are located in Atlanta (GA), Cherry Hill and Saddle Brook (NJ), Chicago (IL), Dallas and Houston (TX), Denver (CO), New York City and Rochester (NY), Orlando (FL), Los Angeles and San Francisco (CA), Washington, D.C., Wellesley (MA), and Westport (CT).
- Canadian offices are located in Toronto, Montreal, and Calgary.
- A U.K. office is located in London (CCA Limited).

COMPUTER CORPORATION OF AMERICA

COMPUTER HARDWARE AND SOFTWARE

- CCA's computer center, located in Cambridge, operates:
 - 1 IBM 4341 Group I, VM/CMS, VSI, VSE.
 - 2 DEC VAX-11/780s, UNIX.
 - 3 DEC PDP-11/70s, UNIX, RSX-11M.

7 of 7
August 1986



acquired by Cowntek (1984)

COMPANY HIGHLIGHT

**COMPUTER CORPORATION
OF AMERICA**
675 Massachusetts Avenue
Cambridge, MA 02139
(617) 492-8860

Dr. Thomas Marill, President
Private Corporation
Total Employees: 135
Total Revenue, Fiscal Year End
12/31/81: \$10,072,000

THE COMPANY

- Computer Corporation of America (CCA) was established by its president, Dr. Thomas Marill, in 1965 to provide professional services to the federal government. In the 1970s, two software products were introduced, a data base management system and an electronic mail system. These have accounted for an increasing percentage of total revenue, surpassing professional services for the first time in 1981.
- 1981 revenue was \$10,072,000, a 43% increase over 1980 revenue of \$7,057,000. The company projects a 40% growth rate for 1982, anticipating revenue of \$14 million. 1981 income before taxes, \$771,495, rose 50% over the 1980 figure, \$516,000. A five-year financial summary follows:

COMPUTER CORPORATION OF AMERICA FIVE-YEAR FINANCIAL SUMMARY (\$ thousands)

ITEM	FISCAL YEAR	1981	1980	1979	1978	1977
Total revenue		\$10,072	\$ 7,057	\$ 5,450	\$ 3,510	\$ 2,250
. Percent increase from previous year		43%	29%	55%	56%	N/A
Income before taxes		\$ 772	\$ 516	\$ 237	\$ 40	\$ 35
. Percent increase from previous year		50%	118%	493%	14%	N/A
Net income		\$ 506	\$ 300	\$ 154	\$ 74	\$ 38
. Percent increase from previous year		69%	95%	108%	95%	N/A

- Research and development expenses were about 9% of 1981 revenue and 8% of 1980 revenue.

COMPUTER CORPORATION OF AMERICA

- CCA is organized into one division and one operating unit.
 - The Research and Systems Division undertakes research and development projects with a focus on network data base management systems. It accounted for 42% of total 1981 revenue.
 - Commercial Activities develops, markets, and supports data base management and electronic mail products and accounted for 58% of total 1981 revenue.
- CCA employees are segmented as follows:

Research and development	46
Commercial products	50
General and administrative	<u>39</u>
	135

- Major competitors include GTE, IBM, Tymshare, Software ag of North America, and Cullinane Corporation.

KEY PRODUCTS AND SERVICES

- 1981 revenue was distributed as follows:

Software Products	45%
Professional Services	42
Processing	10
Turnkey Systems	<u>3</u>
	100%

- Revenues generated by products and services from 1977 to 1981 are as follows (\$ thousands):

ITEM	FISCAL YEAR	1981	1980	1979	1978	1977
Professional services		\$ 4,228	\$ 3,696	\$ 3,510	\$ 2,450	\$ 1,470
. Percent increase from previous year		14%	5%	43%	67%	24%
Data base management products		\$ 4,089	\$ 1,942	\$ 1,470	\$ 920	\$ 650
. Percent increase from previous year		111%	32%	60%	42%	59%
Electronic mail products		\$ 1,755	\$ 1,419	\$ 470	\$ 140	\$ 130
. Percent increase from previous year		24%	202%	236%	8%	N/A

COMPUTER CORPORATION OF AMERICA

- All of CCA's professional services are performed for the federal government. Basic research and system design/implementation centers on computer networks and data base management. Representative projects include the following:
 - Design and implementation of Datacomputer, a DBMS employed by several hundred ARPANET users. CCA co-authored the concept of ARPANET, the first nationwide computer network, for the Department of Defense.
 - Research and experimentation for a Chemical Substances Information Network (CSIN). CSIN will enable users to retrieve and relate chemical data from widely dispersed, and independently operated computer systems.
 - SDD-I, the first distributed data base system for general, large-scale operations, designed for the Department of Defense.
 - Multibase, a facility for interfacing local data bases which are part of a distributed network, but which use different DBMSs. Multibase is being created for the Department of Defense.
 - The Distributed Data Base Concurrency Control project, which compared the performance of concurrency control methods for Rome Air Development Center.
 - Designing ADAPLEX, a general purpose language for programming data base applications suitable for both centralized and distributed DBMSs. ADAPLEX embeds the data base sublanguage, DAPLEX, in ADA, the proposed standard programming language of the Department of Defense.
 - The CODASYL Query Language Project, sponsored by the National Bureau of Standards. CCA is developing a query language for access to CODASYL network data bases by nonprogrammers.
 - Ongoing research and development in Spatial Data Management. Data base information is represented graphically on a CRT, in contrast to conventional DBMSs in which data is accessed by asking questions in a formal query language. CCA has completed an experimental system.
 - The Program Visualization Project, for which CCA is investigating the use of computer graphics in the design, development, documentation, and maintenance of software. The company is building a system that will create graphic displays of running programs, and allow the user to control and modify the programs through graphic interaction.
- CCA offers two primary products, Model 204 Data Base Management System, which contributed \$4,089,000 (41%) of 1981 revenue, and COMET, an electronic mail system, which contributed \$1,755,000 (17%).

COMPUTER CORPORATION OF AMERICA

- Model 204 was introduced in 1971 and has been upgraded annually. It is a generalized data base management system which supports IBM mainframe users. The product provides access to data in on-line or batch modes, and features an English-like user language.
 - Four basic modules can be used to configure a Model 204 system:
 - . Inverted File Access Method (IFAM), a proprietary implementation of the inverted file approach.
 - . User language modules.
 - . Host language interface.
 - . Utility programs to build and maintain the data base.
 - Model 204 has a wide range of application capabilities that include:
 - . Financial analysis.
 - . Personnel administration.
 - . Federal information systems.
 - . Scheduling and planning.
 - . Inventory control.
 - . Professional service billing and reporting.
 - . Telephone directory assistance.
 - Up to 1,000 users can be supported simultaneously; each user can manipulate up to eight billion on-line records.
 - Model 204 runs on IBM 360/370, 303X, and 4300 models, as well as on plug-compatible mainframes. It operates under OS/MVT, VS1, VS2/SVS, VS2/MVS, DOS/VS, and DOS/VSE. These operating systems may run standalone or under VM. Model 204 has its own teleprocessing monitor, and can also be accessed through CICS, INTERCOMM, or TSO. Interfaces are provided for COBOL, PL/I, FORTRAN, and Assembler Language.
 - Two optional enhancements are available.
 - . Distributed/204 DBMS allows data bases to be fully distributed over any number of mainframes, but to be perceived by the end user as centralized.
 - . COMET/204 is an integration of the COMET electronic mail system with Model 204. The same terminal is used for data base access and for electronic message handling.
 - Model 204 prices range from \$60,000 to \$195,000. Over 125 packages have been installed.
 - The system is available on several service bureaus, including Data-crown, Informatics, and COMNET.

COMPUTER CORPORATION OF AMERICA

- In Japan, the product is marketed by Mitsui Knowledge Industries.
- COMET, introduced in 1978, is an electronic mail system available either as a software product or on a remote computing basis. English language commands allow the user to read and answer messages, forward messages to other subscribers, file and retrieve messages, compose, and edit text.
 - COMET runs on DEC PDP/11 minicomputers under RSX-11M or 11M PLUS, and IAS operating systems. It also runs on IBM 360/370, 4300, 303X, and all plug-compatible mainframes under OS. COMET is SNA compatible.
 - COMET can be used in combination with word processing terminals, and can provide access to TWX and Telex networks.
 - CCA offers the product on a remote computing basis. About 75 accounts, with over 4,000 users, access the service via Telenet, Tymnet, Uninet, or direct dial. Monthly charge per account is \$100. For a \$60 fee, each user is entitled to up to nine hours of connect time per month. As an alternative to the fee, the user may be billed at \$12 per hour of connect time.
 - . Networks in foreign countries offering COMET are SIMPACT (Italy), Radio Suisse (Switzerland), France Cable and Radio (France), British Leland Systems Ltd. (UK), and Computer Power (Australia).
 - CCA offers COMET software for in-house use. The DEC version licenses for \$40,000 on a one-time charge basis. The IBM version is \$60,000.
 - . Over 20 systems have been installed to date.
 - CCA is an OEM for Digital Equipment Corporation, and will configure DEC PDP/11s to customer requirements, to provide COMET on a turnkey basis.

INDUSTRY MARKETS

- In 1981, 42% of total revenue was derived from professional services performed for the federal government. In 1979, this figure was 80%. CCA expects that the government sector will contribute an increasingly smaller percentage of total sales, as the company focuses on its commercial products.
- COMET and Model 204 are sold across all industry sectors, and contributed 58% of 1981 revenue. Sales were particularly strong in the oil, aerospace, telecommunications, banking and finance, petrochemical, and pharmaceutical industries. CCA targets Fortune 1000 sized commercial and government organizations.

COMPUTER CORPORATION OF AMERICA

GEOGRAPHIC MARKETS

- Customers are located throughout the United States, with a large percentage in the Washington, D.C., to Boston corridor. Texas is a rapidly growing market.
- U.S. business accounted for 93% of 1981 revenue. International sales accounted for 7%.
- Branch offices are located in Arlington (VA), Chicago, Houston, San Francisco, Los Angeles, New York City, and Morristown (NJ). A sales office is located in Boston.

COMPUTER HARDWARE AND SOFTWARE

- CCA's computer center, located in Cambridge, operates:
 - 1 IBM 4341 Group I, VM/CMS, VSI, VSE.
 - 2 DEC VAX/780s, UNIX.
 - 3 DEC PDP 11/70s, UNIX, RSX-11M.

COMPANY HIGHLIGHT

COMPUTER CORPORATION OF
AMERICA
575 Technology Square
Cambridge, MA 02139
(617) 491-3670

Dr. Thomas Marill, President
Private
Total Employees: 100
Total Revenues Fiscal Year End
12/31/79: \$5.45 Million

THE COMPANY

- Computer Corporation of America (CCA) was established by its president, Dr. Thomas Marill, in 1965. The company specializes in the areas of data base management, distributed data systems, computer networks, computer message systems and mass memory utilization. Products and services are developed as a consequence of research and development activities performed for the federal government and the company.
- CCA ended fiscal year 1979 with \$5.4 million in revenues, a 55.4% increase over 1978 revenues of \$3.5 million. The company projects a 38% growth rate for 1980, anticipating revenues of \$7.5 million.
- A five-year financial summary follows:

COMPUTER CORPORATION OF AMERICA FIVE-YEAR FINANCIAL SUMMARY (\$ Thousand)

ITEM	FISCAL YEAR	1979	1978	1977	1976	1975
Research-Development	\$ 3,510	\$ 2,450	\$ 1,470	\$ 1,190	\$ 1,750	
. Percent increase (decrease) from previous year	43%	67%	24%	(32%)	N/A	
Database Products	1,470	920	650	410	340	
. Percent increase (decrease) from previous year	60%	42%	59%	21%	N/A	
Communication Products	470	140	130	0	0	
. Percent increase (decrease) from previous year	236%	8%	N/A	N/A	N/A	
Total Revenues	\$ 5,450	\$ 3,510	\$ 2,250	\$ 1,600	\$ 2,090	
. Percent increase (decrease) from previous year	55%	56%	41%	(23%)	N/A	

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June 1980

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COMPANY HIGHLIGHT/COMPUTER CORPORATION OF AMERICA

- In 1980, the company projects that research activities will account for \$4 million of total revenues; data base products, \$2 million; and communications products, \$1 million.

- The total number of employees has grown from 78 in 1978 to 100 in 1979. Employees are categorized as follows:

- Research and development	39
- Data base products	26
- Communication products	13
- General and administrative	<u>22</u>
TOTAL	100

- Major competitors of the company include GTE, IBM, Tymshare, Software AG of North America, and Cullinane Corporation.

KEY PRODUCTS AND SERVICES

- Research and development activities center around advanced software technology development projects performed for the federal government. This activity within CCA continues to contribute the largest portion of its revenues, although the areas of commercial software and services are growing at a faster rate. Acquisitions to augment existing commercial offerings are possible.
- CCA has divided its research and development activities into two divisions. Together they contribute 64% of total revenues, or \$3.5 million.
 - Sponsored Research Division: specializes in fundamental research projects. Efforts are directed towards the conceptualization and development of future systems. Work in this area has included participation in the creation of the first packet-switched network, ARPANET, for the Advanced Research Projects Department of Defense. CCA both designed and implemented the DATACOMPUTER, a large-scale data system for the ARPA network. Other projects include SDD-1, the world's first distributed data base management system; and SDMS, an advanced graphics interface to a DBMS.
 - Advanced Development Division: designs operational systems to meet specific needs. The division has recently developed an information system for toxic substances for the Environmental Protection Agency.
- CCA looks to its research and development activities as a source for commercial products.

COMPANY HIGHLIGHT/COMPUTER CORPORATION OF AMERICA

- The Data Base Products Division provides specialized commercial software products. In 1979, the division contributed 27% (\$1.5 million) of total revenues. The Model 204 Data Base Management System, introduced in 1971 and upgraded annually thereafter, is the division's key product.
 - Model 204 is a generalized, data base management system designed to support users of IBM's OS, and OS/VS operating systems on System 360/370, or compatible computers. The product provides access to data in both batch and on-line modes and features an English-like user language. Interfaces are available to COBOL, PL/I, Fortran, and BAL programs. It is operated with its own teleprocessing monitor, IBM's CICS and Informatics' Intercomm Telecommunications monitors.
 - Four basic modules can be used to configure a Model 204 system:
 - . Inverted File Access Method (IFAM), a proprietary implementation of the inverted file approach.
 - . User language modules.
 - . Host language interface.
 - . Utility programs to build and maintain the data base.
 - The Model 204 has a wide range of application capabilities that include:
 - . Financial analysis.
 - . Personnel administration.
 - . Federal information systems.
 - . Scheduling and planning.
 - . Inventory control.
 - . Professional service billing and reporting.
 - . Telephone directory assistance.
 - The system is available on several service bureaus.
 - The price of the system ranges from \$60,000 to \$150,000 depending on the configuration selected. Over 50 packages have been installed.
 - Model 204 is offered in Japan by Mitsui Knowledge Industries.

COMPANY HIGHLIGHT/COMPUTER CORPORATION OF AMERICA

- The Communication Products Division specializes in the development and marketing of electronic message-handling systems. The division contributed 9% (\$470,000) of total 1979 revenues. Its main product is COMET (COmputer MEssage Transmission).
 - COMET is a software product providing an in-house electronic mailbox capability. COMET currently runs on DEC PDP11 minicomputers under the RSX or IAS operating systems, although it will be compatible with IBM Systems 370 and 3033 in 1981.
 - The package uses English-language commands and can be used to read messages, perform composition and editing, forward messages to other subscribers, answer messages, file and retrieve messages and summarize key information about the messages in a file.
 - COMET provides the user with a non-interruptive method of receiving messages.
 - The system can be used in combination with word processing terminals and can provide access to TWX and Telex networks.
 - CCA offers COMET on a remote computing basis. Over 55 clients access the service via Telenet or Tymnet. Monthly charges are \$100 per organization and \$60 per individual subscriber. Standard usage includes up to nine hours of connect time. CCA's client base is growing at the rate of 10% each month, with the total number of subscribers exceeding 1,000.
 - . COMET is offered in Canada by Canada Systems Group, by SIMPACT in Italy, and by Radio Suisse in Switzerland.
 - . In the electronic mail marketplace, CCA's COMET service faces competition from GTE, Tymshare, Compuserve, and Scientific Timesharing.
 - CCA also offers the systems for in-house use. The software license fee is \$40,000 for a one-time charge, or \$1,446 per month for a three-year, full-payment lease.
 - . Eight systems have been installed to date. The company is an OEM for Digital Equipment Corporation and will configure DEC PDP11 minicomputers to customer requirements in order to provide COMET on a turnkey basis.

INDUSTRY MARKETS

- In 1979, 80% of CCA's revenues were generated from the federal government. This figure will be reduced to 70% in 1980.

COMPANY HIGHLIGHT/COMPUTER CORPORATION OF AMERICA

- Remaining revenues were derived from software sales to all sectors, particularly the oil and aerospace industries.

GEOGRAPHIC MARKETS

- In 1979, less than \$100,000 was derived from business in Europe and Canada. CCA anticipates that revenues generated in the Japanese, European and Canadian markets will account for \$500,000 in 1980.
 - As the federal government is the company's primary client, much of its business tends to be in the Washington, D.C. area. Other clients are concentrated in New York, Boston, and Chicago.
 - CCA maintains a branch office in Arlington (VA), and sales offices in Chicago, Houston, New York, and San Francisco.

COMPUTER HARDWARE

- Computer equipment used for the COMET service, as well as for testing and development purposes, consists of:
 - One DEC PDP-10, 10X.
 - Two DEC PDP-11/70s UNIX, RSX 11M.
 - Two DEC PDP-11/40s, RSX 11M.
 - CCA's data center is located in Cambridge, Mass. Clients access the network via Telenet, Tymnet or direct dial.



COMPANY HIGHLIGHT

cc:
Lenny Theoris
✓

COMPUTER CORPORATION OF AMERICA, INC.
575 Technology Square
Cambridge, Massachusetts 02139
(617) 491-3670

Thomas Marill, President
Private Corporation
Total employees: 48
Total revenues, fiscal year
end 12/31/77: \$2.1 million

THE COMPANY:

- Computer Corporation of America, Inc. (CCA) was founded in 1965 by Dr. Marill. It specializes in the design, development, and implementation of data base/data communications systems.
- Since early in 1971, CCA has been marketing its model 204 as a standardized data base management software package.
- In 1976 CCA had a major reorganization changing the company from a one-man, one-product operation to a company with two separate and distinct divisions: commercial products and sponsored research. The Commercial Products Division is responsible for software sales. The Sponsored Research Division provides system development and implementation under contract to the Federal Government.
- CCA has had a corresponding shift to increase the emphasis on software product sales. Currently less than 40% of total revenues, software sales are targeted to be generating 50% of revenues by year end 1980.
- The Federal Government has traditionally generated the great majority of CCA revenues.
- Traditionally CCA has depended on its research staff to provide marketing of its services to the Federal market. Recognizing the need for a professional sales force, CCA added five full time sales persons in June of 1976 and intends to increase this to nine in 1978.

KEY PRODUCTS AND SERVICES:

- The Commercial Products Division, generating approximately 40% of total company revenues, has two basic products: Model 204 and TDA. Although sold as standard packaged software, they will be customized for a fee to meet specific client requirements. Installed software is enhanced and maintained by CCA.

August 1977

COMPANY HIGHLIGHT/COMPUTER CORPORATION OF AMERICA, INC.

- The Model 204 is a general purpose data base management system available for IBM 360/370 computer systems. It is currently installed at 26 sites, including INFORMATICS, both houses of the U.S. Congress, and Columbia University. It is used for personnel inventory control, budget preparation, and legislative bidding status reports.
- TDA is an "electronic mail" message service being developed by CCA. It is currently available for testing and evaluation over TELENET and at one test site.
- The Sponsored Research Division, currently generates approximately 60% of CCA revenues. Both of the proprietary software products marketed through the Commercial Products Division were developed by the Research Division. The company anticipates that all new products will also be developed by this division or under contract to clients.
 - Current clients are agencies of the U.S. Government.
 - This division has developed the Datacomputer, a large-scale data system for the ARPA network. Datacomputer, based on a DEC PDP/10 and an Ampex TBM, handles shared on-line data bases of up to one trillion bits.
 - The Sponsored Research Division also does custom research for the U.S. Government, primarily the Department of Defense.

APPLICATIONS: CCA products are all general purpose; and therefore, would be classified as having general business applications.

INDUSTRY MARKETS: Seventy-five percent of CCA revenues are generated by the U.S. Government. The remaining 25% are generated by software licensed to state and federal agencies, industrial firms, and universities.

GEOGRAPHIC MARKETS: Seventy-five percent of CCA revenues are derived from the Washington, D.C. area. Other revenues are derived from clients in Boston, New York, and Chicago.

- The company currently operates:
 - One DEC PDP-10 supplemented by an AMPEX TBM trillion bit memory system and standard peripherals.
 - Three DEC PDP-11/40s with/disks and standard peripherals.
- CCA is installing an additional DEC PDP-11/70.

COMPANY HIGHLIGHT/COMPUTER CORPORATION OF AMERICA, INC.

- Four CCA computers are hosts on the ARPA network and two on the Telenet network.

August 1977

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COMPANY BRIEF

Primary Industry-Specific Market: Education

Computer Curriculum Corporation
1070 Arastradero Road
P.O. Box 10080
Palo Alto, CA 94303-0812
(415) 494-8450

CEO: Dr. Patrick Suppes, President
Private Company
Founded: 1967

Employees: 180 (11/86)
Revenue (FYE 12/31/86): \$15,000,000*

The Company: Computer Curriculum Corporation (CCC) provides computer-assisted instruction (CAI) systems for elementary and secondary school districts. CCC provides all courseware, hardware, automatic management software, on-site training, and maintenance.

Sources of Revenue:

- Turnkey Systems (100%)

Key Products:

- Turnkey Systems (Utilizes MICROHOST^{T.M.}, CCC's UNIX-based supermicro system)
 - CCC MICROHOST Instructional System offers more than 25 courses in:
 - Reading
 - Mathematics
 - Language arts
 - Computer literacy
 - The MICROHOST computer can also be used for:
 - Word processing
 - Electronic mail
 - Programming
 - Courseware authoring
- Terminal emulator software is available from CCC for the Apple IIe, IBM PC, and the Sony SMC-70 to allow these micros to be used as terminals on the MICROHOST system

Target Industries:

- Education (100%)
- 50% of sales are to elementary school districts and 50% to secondary school districts

*INPUT estimate

December 1986

Geographic Markets:

- U.S. (99%)
- Non-U.S. (1%)
- Sales Offices: Palo Alto (CA), Euless (TX), and Atlanta (GA)
- CCC's products are also sold through distributors

Significant Events:

- In 1986, CCC integrated Atari ST microcomputers with the MICROHOST system, permitting all CCC courses to be available in color. CCC curriculum designers are creating new courses that take advantage of the ST's color, graphics, and power.

December 1986

Alex Watt (Seeq-Pat)
VP, Finance & Admin 1/81
Drafted

COMPANY HIGHLIGHT

COMPUTER CURRICULUM CORP.
700 Hansen Way
Palo Alto, CA 94304
(415) 494-8450

Dr. Patrick Suppes, President
Private
Total employees: 85
Total revenues for fiscal year end
3/31/78: \$5,000,000*

THE COMPANY

- Computer Curriculum Corp. (CCC) was incorporated in California in 1967. Begun as a software company, it added hardware during 1970 when turnkey systems for computer aided instruction became its primary computer service. CCC also manufactures terminals for use in its turnkey systems.
- Management states that CCC has grown entirely through internal growth and that revenues for fiscal 1979 are projected to increase 40% over fiscal 1978 revenues. The company is profitable, according to management.
- Employees, which have grown from 70 to 85 since the end of fiscal 1978, perform principal functions as follows:
 - Marketing/sales (includes sales trainees currently working as customer service reps) 19%
 - Software services/customer support 36
 - General and administrative 15
 - Manufacturing and other 30

100%

KEY PRODUCTS AND SERVICES

- One hundred percent of CCC revenues are generated by minicomputer-based turnkey systems called CCC-17 Instructional Computer Systems.
 - There are currently between 150 and 200 installations of CCC's Instructional Computer System.
 - Customized operating systems and computer aided instruction applications software are added to the OEM-purchased minicomputer.
 - Professional services, such as consulting and education, are provided to customers free of charge as part of CCC's support program.

Competition:

*INPUT estimate

August 1978

COMPANY HIGHLIGHT/COMPUTER CURRICULUM CORP.

- SLS-I terminals, manufactured by CCC, are sold only as part of the CCC-17 turnkey systems.
 - The number of terminals associated with each mini ranges from 16 to 96.
 - The SLS-I terminals account for approximately 60% of the retail sales value of the CCC-17 product.

APPLICATIONS AND INDUSTRY MARKETS One hundred percent of fiscal 1978 revenues were generated by specialized computer aided instruction turnkey systems sold to public elementary schools, part of the education industry.

and secondary

GEOGRAPHIC MARKETS Sixty percent of revenues were generated by the South Central States for fiscal 1978. Remaining revenues were generated by the following regions in order of importance:

Pacific states
Middle Atlantic states
Mountain states

COMPUTER HARDWARE AND SOFTWARE CCC uses seven minicomputers that run under the firm's customized operating system for purposes of product development and testing only.

COMPANY PROFILE

COMPUTER DATA SYSTEMS, INC.

One Curie Court
Rockville, MD 20850
(301) 921-7000

Clifford Kendall, Chairman and CEO
Gordon S. Glenn, President and COO
Public Corporation, NASDAQ
Total Employees: 2,766 (4/91)
Total Revenue, Fiscal Year End
6/30/90: \$124,883,300

The Company

Computer Data Systems, Inc. (CDSI), founded in 1968, provides professional and processing services, systems integration, systems operations, proprietary financial software products, productivity and computer-aided software engineering (CASE) tools, and turnkey systems to clients located in the Washington, D.C. area and throughout the U.S. Approximately 90% of CDSI's revenue is derived from various agencies and departments of the federal government.

Revenue for the nine months ending March 31, 1991 reached \$95.7 million, a 3% increase over \$93.0 million for the same period a year ago. Net income was \$2.2 million, or \$0.80 per share, versus \$2.6 million, or \$0.89 per share, for the same period last year. The prior year's results included a nonrecurring after-tax gain of \$0.12 per share from the sale of warehouse land and \$0.05 per share from interest income on tax refunds.

Fiscal 1990 revenue reached \$124.9 million, an 18% increase over fiscal 1989 revenue of \$105.5 million. Net income rose 339%, from \$845,000 in fiscal 1989 to over \$3.7 million in fiscal 1990. A five-year financial summary follows:

**COMPUTER DATA SYSTEMS, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ millions, except per share data)**

ITEM	FISCAL YEAR				
	6/90	6/89	6/88	6/87	6/86
Revenue • Percent increase (decrease) from previous year	\$124.9 18%	\$105.5 59%	\$66.0 25%	\$52.9 (3%)	\$54.6 (1%)
Income before taxes • Percent Increase (decrease) from previous year	\$4.8 *	\$0.3 (93%)	3.9 20%	\$3.2 (24%)	\$4.2 (17%)
Net income • Percent increase (decrease) from previous year	\$3.7 339%	\$0.8 (73%)	\$3.1 77%	\$1.8 (25%)	\$2.3 (21%)
Earnings per share • Percent Increase (decrease) from previous year	\$1.29 345%	\$0.29 (75%)	\$1.14 87%	\$0.61 (21%)	\$0.77 (20%)

* Percent change exceeds 1,000%.

(a) Includes a \$540,000 gain from the sale of warehouse land and \$590,000 in interest income.

CDSI management attributes fiscal 1990 results to the following:

- Revenue growth during fiscal 1990 resulted primarily from full-year performance on the Department of Energy and General Services Administration contracts in the Professional Services Group. Revenue from the Enterprise Systems Group increased 3%, with moderate growth in proprietary software package sales.
- Costs and expenses increased approximately 15% during fiscal 1990 compared to 69% in fiscal 1989. The smaller increase resulted from the absence of start-up costs associated with the prior year's contract awards, improved performance on fixed-price contracts, and a \$500,000 reduction in operating losses in the Software Productivity Tools Division.
- Net income increased due to improved operating margins and increased interest and other income.

CDSI's current operations are conducted through three major groups and various divisions as follows:

- The Professional Services Group provides life-cycle capabilities in systems development, telecommunications, financial systems, office automation, and systems operations (facilities management) services.
- The Government Services Division provides professional services and supports task order-based contracts and projects for the federal government. Clients include the General Services Administration (GSA); the General Accounting Office (GAO); and the Departments of Labor, Energy, Interior, Education, Justice, State, and Treasury.
- The Information Systems Division develops business solutions for special-purpose applications, including distributed networks, image processing, artificial intelligence, and data base management.
- The Energy Systems Division provides ADP services for mainframe processing, end-user computing support, computer and communications security, and telecommunications services for the Department of Energy (DOE).
- The Systems Engineering Group provides a range of computer and telecommunications systems engineering, information security and risk analysis, and logistics support to the DoD and other federal clients through contracts with the GSA. Services include life-cycle development; systems analysis, design, and development; training; and quality assurance.
 - The Defense/Aerospace Systems Division provides computer and telecommunications systems engineering and support services primarily to the DoD.
 - The Technology Services Division provides ADP support services for the GSA and other federal agencies, including life cycle development and information technology security services.
 - The Systems Integration Division provides integrated hardware, software, and telecommunications systems to federal clients, primarily within the DoD.
- The Enterprise Systems Group provides financial software products, CASE products, turnkey systems, clearinghouse

operations, systems integration, and full-service processing to federal, state, and local governments, and commercial clients. This group (formerly called the Data Processing Support Services Group) has been reorganized into the following divisions:

- The Information Products Division (IPD) develops, markets, and supports proprietary financial and debt management application software products for federal and state governments and commercial clients. IPD also provides trust fund and pension software products for trade unions and nonprofit organizations.
- The Processing Services Division supports full-service data processing operations for government and commercial organizations. The division offers CDSI proprietary financial and debt management software products, mail room processing, fulfillment services, and inventory control.
- The Re-engineering Tools Division develops and markets software tools for software re-engineering and maintenance to government and Fortune 1000 commercial clients.

As of June 30, 1990, CDSI had 2,656 employees. The company currently has 2,766 employees, segmented as follows:

Professional Services Group	1,165
Systems Engineering Group	1,102
Enterprise Systems Group	341
General and administrative	158
	2,766

CDSI professional services competitors include Computer Sciences Corporation, PRC Inc. (Black & Decker), Electronic Data Systems, CBIS Federal, OAO Corporation, Science Applications International Corporation, and American Management Systems.

Key Products and Services A two-year summary of source of revenue follows:

COMPUTER DATA SYSTEMS, INC.
TWO-YEAR SOURCE OF REVENUE SUMMARY
(\$ millions)

BUSINESS GROUP	FISCAL YEAR			
	6/90		6/89	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Professional Services	\$65.9	53%	\$50.5	48%
Systems Engineering	39.2	31%	35.8	34%
Enterprise Systems (a)				
- Financial Systems	9.4	8%	8.6	8%
- Clearinghouse	4.4	3%	4.9	5%
- Union Systems	4.5	4%	3.7	4%
- Software Productivity Tools	1.3	1%	1.3	1%
- Systems Integration (b)	0.1	--	0.6	--
- Data Systems	0.1	--	0.1	--
TOTAL	\$124.9	100%	\$105.5	100%

(a) Formerly called the Data Processing Support Services Group.

(b) Now included in the Systems Engineering Group.

A three-year summary of source of revenue, as provided by CDSI, follows:

COMPUTER DATA SYSTEMS, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
(\$ millions)

ITEM	FISCAL YEAR					
	6/90		6/89		6/88	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Professional services	\$105.7	85%	\$86.3	82%	\$48.9	74%
Data processing support services	19.2	15%	19.2	18%	17.1	26%
TOTAL	\$124.9	100%	\$105.5	100%	\$66.0	100%

Professional Services/Systems Operations:

Recent professional services contract awards include the following:

- In September 1990, CDSI received a contract from the Federal Communications Commission (FCC) to provide systems operations and software support services to the FCC within the national capital locations. The contract has a one-year base period, four one-year option periods, and a potential value in excess of \$5 million.
- In February 1990, CDSI received a contract from the U.S. Department of Defense to provide operational support and systems analysis, system design, programming, testing, implementation, documentation, conversion, and maintenance of application software to support the CHAMPUS medical and health program. The contract has a one-year base period and two one-year option periods and a potential value in excess of \$12 million.
- CDSI is a member of a CACI International team providing ADP software development, maintenance, and site implementation services for the Naval Weapons Support Center (Crane, IN).
- CDSI has also recently been awarded contracts with the U.S. Postal Service, the Department of Interior, the Federal Deposit Insurance Corporation, and a \$15 million add-on contract from the Public Health Service.

Other contracts include the following:

- In June 1988, CDSI was awarded the largest contract in CDSI history by the DOE's Office of Computer Services and Telecommunications Management to provide telecommunications engineering support and network management for a nationwide satellite and high-capacity terrestrial digital telecommunications network that integrates voice, data, and video. CDSI provides software engineering services to support a range of DOE administrative and program support systems, user training, and office automation support. More than 570 people are employed on this contract, which has a potential value of \$158 million during a five-year period.
- CDSI received a contract from the Department of Justice, Immigration and Naturalization Service (INS) to provide development and support of the Central Index System. CDSI,

INS, the U.S. Customs Service, and the Department of State are jointly developing an Inter-Agency Border Information System to support the identification of undesirable persons. More than 130 people are employed on this contract, which has a potential value of \$40 million over five years.

- In July 1988, CDSI was awarded a contract by the GSA Information Resources Management Service to provide ADP technical support services for business applications in GSA's Central Zone. This contract has a potential value in excess of \$120 million over four years.
- In August 1988, CDSI received a contract from the GSA Information Resources Management Service to provide ADP facilities management support services in GSA's Central Zone. The contract has a potential value of \$38 million over three years.
- In August 1988, CDSI rewon a contract with the GSA Information Resources Management Service to provide systems design, development, maintenance, and conversion support for ADP administrative applications in GSA's Eastern Zone. The contract has a potential value of \$40 million over three-and-a-half years.
- CDSI supports the Multifamily Information Processing System, which assists HUD personnel in underwriting and managing mortgage insurance for multifamily housing projects. CDSI also developed the Supportive Housing Tracking System, a nationwide data base that supports the processing of applications for transitional and permanent housing for the homeless. CDSI also supports the Cash Management System for the Section 312 Loan Program.
- In November 1988, CDSI announced it had rewон a contract from the Department of Labor's Directorate of Information Resources Management to provide information systems development and telecommunications support services. The four-year contract has a potential value of \$40 million.
- CDSI is also the primary contractor for the U.S. Army's Depot Systems Command in Chambersburg (PA), supporting the Army's Material Modernization Plan.

The Systems Engineering Group has performed a range of projects for federal government clients, including the following:

- CDSI supports major systems within the Naval Telecommunications Automation Program for the Naval Telecommunications Command.
- CDSI has accomplished more than 100 risk analysis tasks for federal, military, and private industry clients, including the Departments of Energy, Agriculture, Treasury, Transportation, and DoD agencies.
- For the IRS, CDSI designed and implemented a centralized inventory and distribution system for order processing of all internal and public IRS forms and publications at five central locations.

Systems Integration Services:

CDSI provides hardware, software, and telecommunications systems, primarily to the DoD. Services include requirements analysis, selection and integration of hardware and software, installation, testing, training, and life cycle user support.

- Systems include office automation, local and wide-area networks, data base management, and transaction processing.
- CDSI's contract with the U.S. Navy included the design, procurement, integration, and installation of a local-area network to upgrade the office automation capabilities of the Commander-In-Chief, U.S. Atlantic Command Headquarters in Norfolk (VA).

Software Products:

Application software products offered through CDSI's Information Products Division include the following:

- The Financial Accounting and Reporting System (FARS) is an on-line, integrated fund accounting and reporting system for IBM mainframes and Unisys 1100 and 2200 Series computers.
 - FARS capabilities include general ledger, funds control, accounts payable/purchasing, budgeting, planning, and interfaces with other financial systems.
 - A new release of FARS under UNIX is scheduled for beta testing in the spring of this year.
 - FARS serves as the core financial software for several Health and Human Services agencies.

- FARS licenses for \$127,000 to \$210,000. FARS currently supports more than 20 federal agencies and 24 state government organizations.
- The Debt Management and Collection System (DMCS) is designed to automate government and commercial collection processes.
 - DMCS serves as the core debt collection system for several Health and Human Services agencies, the Department of Housing and Urban Development, and the Department of Justice.
 - In October 1988, CDSI rewон a processing contract with HUD for the continued support of the collection operation for Title I Defaulted Loan Program. CDSI supports the collection program through its DMCS system and data center computer operations. The contract is for a base period of 36 months, with four one-year options, and has an estimated value of \$12 million.
 - DMCS runs on IBM and compatible mainframes and licenses for \$127,000 to \$300,000. There are currently eight systems installed.
 - The Debt Management and Collection System for Student Loans (DMCS/SL) has been licensed and installed in the New York State Higher Education Corporation and is being implemented in the Virginia State Education Assistance Authority.
- The Cash Management System (CMS) is a cash disbursement management system for government agencies. CMS runs on IBM and compatible mainframes and licenses for \$127,000. There are currently two systems installed.

CASE and productivity tools offered through CDSI's Re-engineering Tools Division include the following:

- SUPERSTRUCTURE transforms unstructured COBOL code into structured programs.
- RETOOL combines graph theory with simulators to provide further COBOL structuring capabilities.
- SCAN/COBOL is a COBOL workbench.

- COBOL/METRICS evaluates the quality of COBOL systems and programs.

Turnkey Systems:

CDSI's Information Products Division markets UNIX- and MS-DOS-based turnkey systems for trade unions and pension trust funds based on its Labor Affiliates Processing System (LAPS) software. The division also provides pension/trust processing for Taft-Hartley funds.

- LAPS supports membership processing, access to membership information, dues payment records, contractor and job site tracking, and automated job referral lists.
- During fiscal 1989, CDSI entered into an agreement with IBM to market LAPS with the IBM RS6000 and PS/2 product lines.
- LAPS turnkey systems range from \$10,000 to \$50,000. There are currently more than 250 installations.

Other Processing Support Services:

Information storage and fulfillment services are also provided through CDSI's Processing Services Division. CDSI designs customized inventory systems for warehouses and special facilities around the country.

- Domestic and international mailing services include bursting, collating, automated or manual addressing and inserting, mail list maintenance, and folding and metering.
- CDSI processes contributions for many election campaigns on the local and national level. CDSI adheres to Federal Election Commission guidelines and provides direct reporting to the Commission.
- Other clients include the Federal Emergency Management Agency and the League of Women Voters.

CDSI's Data Center, located in Rockville, provides processing support to CDSI and its clients. TSO, CICS, WYLBUR, and IDMS/R and DB/2 data base management systems are the primary systems software supported. The Data Center offers a range of telecommunications services, from terminal support to RJE, and handles both SNA and non-SNA protocols.

Industry Markets

Approximately 90% of CDSI's total fiscal 1990 revenue was derived from the federal government. The remaining 10% of revenue was derived from state government, labor and nonprofit organizations, professional and trade associations, and commercial clients.

For fiscal 1990, 1989, and 1988, substantially all of professional services revenue and 45%, 39%, and 45%, respectively, of data processing support services revenue, was derived from the federal government.

- Professional services sales to the General Services Administration were \$38.7 million (31% of revenue). Sales to the Department of Energy were \$33.2 million (27% of revenue) for fiscal 1990.

Geographic Markets

The majority of CDSI's clients are in the Washington, D.C. metropolitan area. Other clients are throughout the U.S., with concentrations in the Mid-Atlantic and Southeastern regions.

CDSI offices are currently located in Albany and Hapeville (GA), Chambersburg (PA), Des Plaines (IL), Beavercreek (OH), Lakewood (CO), Fort Worth (TX), Germantown and Rockville (MD), Huntsville and Montgomery (AL), Memphis (TN), Louisville (KY), East Brunswick (NJ), Norfolk and Warrenton (VA), Vicksburg (MS), and Pensacola (FL).

Computer Hardware and Software

CDSI's Data Center in Rockville has the following computers installed:

- 1 IBM 3084, MVS/XA
- 1 IBM 9370/60, VSE/SP
- 1 DEC VAX 11/750



COMPANY PROFILE

COMPUTER DATA SYSTEMS, INC.

One Curie Court
Rockville, MD 20850
(301) 921-7000

Clifford Kendall, Chairman and CEO
Gordon S. Glenn, President
Public Corporation, OTC
Total Employees: 2,864
Total Revenue, Fiscal Year End
6/30/89: \$105,492,000

The Company

Computer Data Systems, Inc. (CDSI), founded in 1968, provides professional and processing services, systems integration, proprietary financial software products, productivity and computer-aided software engineering (CASE) tools, and turnkey systems to clients located in the Washington, D.C. area and throughout the U.S. Approximately 89% of CDSI's revenue is derived from various agencies and departments of the federal government.

In July 1988, CDSI acquired Group Operations, Incorporated (GOI) of Rockville (MD) for \$2.5 million and 80,000 shares of CDSI common stock valued at \$790,000.

- GOI, with approximately 90 employees and annual revenue of \$5.5 million at the time of the acquisition, provided COBOL maintenance and restructuring software tools, as well as professional processing services.
- The software operations of GOI were merged into CDSI's newly formed Software Productivity Tools Division. GOI's other operations were merged into existing divisions within CDSI.

Fiscal 1989 revenue reached \$105.5 million, a 59% increase over fiscal 1988 revenue of \$66 million. Net income declined 73%, from \$3.1 million in fiscal 1988 to \$845,000 in fiscal 1989. A five-year financial summary follows:

**COMPUTER DATA SYSTEMS, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	6/89	6/88	6/87	6/86	6/85
Revenue • Percent increase (decrease) from previous year	\$105,493 59%	\$65,986 25%	\$52,938 (3%)	\$54,571 (1%)	\$55,127 --
Income before taxes • Percent increase (decrease) from previous year	\$254 (93%)	\$3,878 20%	\$3,221 (24%)	\$4,246 (17%)	\$5,111 (1%)
Net Income • Percent increase (decrease) from previous year	\$845 (73%)	\$3,115 77%	\$1,760 (25%)	\$2,338 (21%)	\$2,946 2%
Earnings per share • Percent increase (decrease) from previous year	\$0.29 (75%)	\$1.14 77%	\$0.61 (21%)	\$0.77 (20%)	\$0.96 3%

CDSI management attributes fiscal 1989 results to the following:

- Revenue growth during fiscal 1989 resulted primarily from the performance of new Department of Energy and General Services Administration contracts awarded to CDSI's Professional Services Group during the first three months of fiscal 1989. Revenue from the Data Processing Support Services Group increased 13% during fiscal 1989 due primarily to growth in proprietary software package sales.
- Costs and expenses increased approximately 69% during fiscal 1989 compared to 24% in fiscal 1988. The greater rate of increase was attributed to narrower margins bid on new contract awards, startup costs on the new contracts, a loss on a fixed-price contract of approximately \$600,000, and startup costs and operating losses in the Software Productivity Tools Division of approximately \$1.2 million.

CDSI's current operations are conducted through three major groups and various divisions as follows:

- The Professional Services Group provides life-cycle capabilities in systems development, telecommunications, financial systems, office automation, and facilities management services.
- The Government Services Division provides professional services and supports task order-based contracts and projects for the federal government. Clients include the General Services Administration (GSA); the General Accounting Office (GAO); and the Departments of Labor, Energy, Interior, Education, Justice, State, and Treasury.
- The Information Systems Division develops business solutions for special purpose applications, including distributed networks, image processing, artificial intelligence, and data base management.
- The Energy Systems Division provides ADP services for mainframe processing, end-user computing support, computer and communications security, and telecommunications services for the Department of Energy (DOE).
- The Systems Engineering Group provides a range of computer and telecommunications systems engineering, information security and risk analysis, and logistics support to the DoD and other federal clients through contracts with the GSA. Services include life-cycle development; systems analysis, design, and development; training; and quality assurance.
- The Defense/Aerospace Systems Division provides computer and telecommunications systems engineering and support services primarily to the DoD.
- The Technology Services Division provides ADP support services for the GSA and other federal agencies, including life cycle development and information technology security services.
- The Data Processing Support Services Group provides financial software products, CASE products, turnkey systems, clearinghouse operations, systems integration, and full-service processing to federal, state, and local governments, and commercial clients.
- The Financial Systems Division develops, markets, and supports proprietary financial application software products for federal and state government and commercial clients.

- The Union Systems Division provides turnkey systems for trade unions and nonprofit organizations.
- The Clearinghouse Division provides full-service support in the areas of inventory control; mail room processing; pull, pack, and ship processing; document archival; and secure storage.
- The Data Systems Division provides data processing support for CDSI divisions and external clients.
- The Software Productivity Tools Division develops and markets productivity and CASE software tools for software maintenance to government and Fortune 1000 commercial clients.
- The Systems Integration Division provides integrated hardware, software, and telecommunications systems to federal clients, primarily within the DoD.

As of June 30, 1989, CDSI had 2,864 employees. The company currently has 2,848 employees, segmented as follows:

Professional Services Group	1,093
Systems Engineering Group	1,303
Data Processing Support	
Services Group	296
General and administrative	156
	2,848

CDSI professional services competitors include Computer Sciences Corporation, Planning Research Corporation (Black & Decker), Electronic Data Systems, Vanguard (Cincinnati Bell Information Services), OAO Corporation, and American Management Systems.

Key Products and Services

CDSI's fiscal 1989 revenue was derived approximately as follows (\$ millions):

BUSINESS GROUP	REVENUE \$	PERCENT OF TOTAL
Professional Services	\$50.5	48%
Systems Engineering	35.8	34%
Data Processing Support		
- Financial Systems	8.6	8%
- Clearinghouse	4.9	5%
- Union Systems	3.7	4%
- Software Productivity Tools	1.3	1%
- Systems Integration	0.6	--
- Data Systems	0.1	--
TOTAL	\$105.5	100%

A three-year summary of source of revenue, as provided by CDSI, follows:

**COMPUTER DATA SYSTEMS, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
(\$ millions)**

ITEM	FISCAL YEAR					
	6/89		6/88		6/87	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Professional services	\$86.3	82%	\$48.9	74%	\$38.7	73%
Data processing support services	19.2	18%	17.1	26%	14.2	27%
TOTAL	\$105.5	100%	\$66.0	100%	\$52.9	100%

Professional Services:

Recent professional services contract awards include the following:

- In June 1988, CDSI was awarded the largest contract in its history by the DOE's Office of Computer Services and Telecommunications Management to provide telecommunications engineering support and network

management for a nationwide satellite and high capacity terrestrial digital telecommunications network that integrates voice, data, and video. CDSI provides software engineering services to support a range of DOE administrative and program support systems, user training and office automation support. More than 570 people are employed on this contract, which has a potential value of \$158 million during a five-year period.

- During 1988, CDSI was awarded a contract by the Department of Justice, Immigration and Naturalization Service (INS) to provide development and support of the Central Index System, which contains data on over 26 million legal permanent residents, naturalized citizens, violators of immigration laws, and other aliens of interest. CDSI, INS, the U.S. Customs Service, and the Department of State are jointly developing an Inter-Agency Border Information System to support the identification of undesirable persons from the 300 million people who enter the U.S. each year. More than 130 people are employed on this contract, which has a potential value of \$40 million over five years.
- In July 1988, CDSI was awarded a contract by the GSA Information Resources Management Service to provide ADP technical support services for business applications in GSA's Central Zone. This contract has a potential value in excess of \$120 million over five years. A second contract with GSA for ADP studies support has a potential value of \$2 million. These contracts required the hiring of more than 800 new employees and the opening of six new offices.
- In August 1988, CDSI was awarded a contract by the GSA Information Resources Management Service to provide ADP facilities management support services in GSA's Central Zone. CDSI will provide system software maintenance, computer operations, data entry, and production control. The contract has a potential value of \$38 million over three years.
- In August 1988, CDSI rewon a contract with the GSA Information Resources Management Service to provide systems design, development, maintenance, and conversion support for ADP administrative applications in GSA's Eastern Zone. The contract has a potential value of \$40 million over three-and-a-half years.
- In September 1988, CDSI was awarded a contract by the Department of Housing and Urban Development (HUD) to provide ADP development and maintenance support for application software within the Office of Information Policies

and Systems. The contract has a potential value in excess of \$11 million over three years.

- CDSI supports the Multifamily Information Processing System, which assists HUD personnel in underwriting and managing mortgage insurance for multifamily housing projects. CDSI also developed the Supportive Housing Tracking System, a nationwide data base that supports the processing of applications for transitional and permanent housing for the homeless. CDSI also supports the Cash Management System for the Section 312 Loan Program.
- In November 1988, CDSI announced it had won a contract from the Department of Labor's Directorate of Information Resources Management to provide information systems development and telecommunications support services. The four-year contract has a potential value of \$40 million.
- From the Department of Labor Employment Standards Administration, CDSI won a contract to provide systems engineering services in support of administrative and case tracking systems. The contract has a potential value of \$11 million over three years.
- CDSI developed and manages a system to respond to inquiries about career opportunities for the U.S. Navy Recruiting Command, including an answering service for telephone inquiries.
- During fiscal 1989, CDSI also signed new contracts with the Stabilization Agreement of the Sheet Metal Industry, a Taft Hartley Fringe Benefit Fund affiliated with the Sheet Metal Workers International Association; the U.S. Department of the Interior, Bureau of Indian Affairs-Trust Fund Management Services; and the Department of Agriculture, Farmers Home Administration.

The Systems Engineering Group has performed a range of projects for federal government clients including the following:

- CDSI supports major systems within the Naval Telecommunications Automation Program for the Naval Telecommunications Command.
- CDSI has accomplished more than 100 risk analysis tasks for federal, military, and private industry clients, including the Departments of Energy, Agriculture, Treasury, Transportation, and DoD agencies.

- CDSI provides logistics support to the Naval Aviation Depot Operations Center and has developed logistics systems for the Navy Aviation Maintenance Office, the Navy Management Systems Support Office, and the Marine Corps Logistics Base.
- For the IRS, CDSI designed and implemented a centralized inventory and distribution system for order processing of all internal and public IRS forms and publications at five central locations.
- CDSI is also the primary contractor for the U.S. Army's Depot Systems Command in Chambersburg (PA), supporting the Army's Material Modernization Plan.

Software Products:

Application software products offered through CDSI's Financial Systems Division include the following:

- The Financial Accounting and Reporting System (FARS) is an on-line, integrated fund accounting and reporting system for IBM mainframes and Unisys 1100 and 2200 Series computers.
 - FARS capabilities include general ledger, funds control, accounts payable/purchasing, budgeting, planning, and interfaces with other financial systems.
 - In January 1989, CDSI and Unisys entered into a marketing agreement involving the licensing of FARS under the Unisys Value Added Marketing Program. The agreement is directed at the state and local government market where Unisys has a large installation base of mainframe computers.
 - FARS serves as the core financial software for several Health and Human Services agencies.
 - FARS licenses for \$127,000 to \$210,000. FARS currently supports more than 16 federal agencies and 20 state government organizations.
- The Debt Management and Collection System (DMCS) is designed to automate government agency collection processes.
 - DMCS serves as the core debt collection system for several Health and Human Services agencies.
 - In October 1988, CDSI rewon a processing contract with HUD for the continued support of the collection operation

for Title I Defaulted Loan Program. CDSI supports the collection program through its DMCS system and data center computer operations. The contract is for a base period of 36 months, with four one-year options and has an estimated value of \$12 million.

- DMCS runs on IBM and compatible mainframes and licenses for \$127,000 to \$300,000. There are currently eight systems installed.
- The Cash Management System (CMS) is a cash disbursement management system for government agencies. CMS runs on IBM and compatible mainframes and licenses for \$127,000. There are currently two systems installed.

CASE and productivity tools offered through CDSI's Software Productivity Tools Division include the following:

- SUPERSTRUCTURE transforms unstructured COBOL code into structured programs.
- RETOOL combines graph theory with simulators to provide further COBOL structuring capabilities.
- SCAN/COBOL is a COBOL workbench.
- COBOL/METRICS evaluates the quality of COBOL systems and programs.

Turnkey Systems:

CDSI's Union Systems Division markets UNIX- and MS-DOS-based turnkey systems for trade unions and pension trust funds based on its Labor Affiliates Processing System (LAPS) software. The division also provides pension/trust processing for Taft-Hartley funds.

- LAPS supports membership processing, access to membership information, dues payment records, contractor and job site tracking, and automated job referral lists.
- During fiscal 1989, CDSI entered into an agreement with IBM to market LAPS with the IBM RT and PS/2 product lines.
- LAPS turnkey systems range from \$10,000 to \$50,000. There are currently more than 225 installations.

Systems Integration Services:

CDSI provides hardware, software, and telecommunications systems primarily to the DoD. Services include requirements analysis, selection and integration of hardware and software, installation, testing, training, and life cycle user support.

- Systems include office automation, local and wide-area networks, data base management, and transaction processing.
- CDSI's contract with the U.S. Navy included the design, procurement, integration, and installation of a local area network to upgrade the office automation capabilities of the Commander-In-Chief, U.S. Atlantic Command Headquarters in Norfolk (VA).

Other Processing Support Services:

Information storage and fulfillment services are provided through CDSI's Clearinghouse Division. CDSI designs customized inventory systems for warehouses and special facilities around the country.

- Domestic and international mailing services include bursting, collating, automated or manual addressing and inserting, mail list maintenance, and folding and metering.
- CDSI processes contributions for many election campaigns on the local and national level, adhering to Federal Election Commission guidelines and providing direct reporting to the Commission.
- Other clients include the Federal Emergency Management Agency and the League of Women Voters.

CDSI's Data Center, located in Rockville, provides processing support to CDSI and its clients. TSO, CICS, WYLBUR, and IDMS/R and DB/2 data base management systems are the primary systems software supported. The Data Center offers a range of telecommunications services, from terminal support to RJE, and handles both SNA and non-SNA protocols.

Industry Markets

Approximately 89% of CDSI's total fiscal 1989 revenue was derived from the federal government. The remaining 11% of revenue was derived from labor and nonprofit organizations, professional and trade associations, universities, and commercial clients.

For fiscal 1989, 1988, and 1987, substantially all of professional services revenue and 39%, 45%, and 59%, respectively, of data processing support services revenue, was derived from the federal government.

Geographic Markets

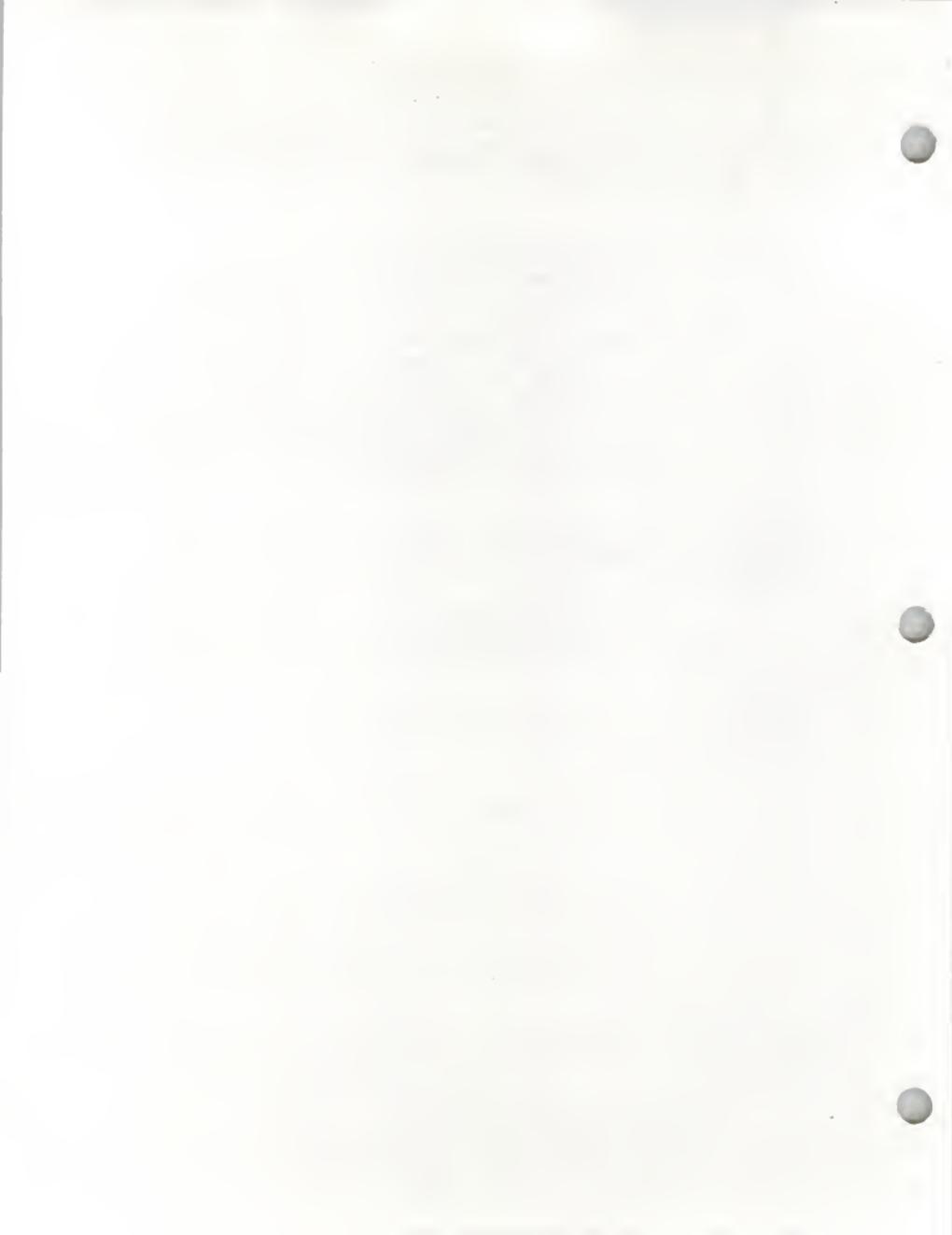
The majority of CDSI's clients are located in the Washington, D.C. metropolitan area. Other clients are located throughout the U.S., with concentrations in the Mid-Atlantic and Southeastern regions.

During fiscal 1989 CDSI opened seven new offices. CDSI offices are currently located in Albany and Atlanta (GA), Boston (MA), Chambersburg and Pittsburgh (PA), Des Plaines (IL), Beavercreek (OH), Lakewood (CO), Fort Worth (TX), Germantown, Lexington Park, and Rockville (MD), Huntsville (AL), Knoxville (TN), Lexington (KY), Metuchen (NJ), Norfolk and Warrenton (VA), and Pensacola (FL).

Computer Hardware and Software

CDSI's Data Center in Rockville has the following computers installed:

- 2 IBM 3083s, MVS/XA
- 1 IBM 9370/60, VSE/SP
- 1 DEC VAX 11/750



FINANCIAL UPDATE TO PROFILE DATED OCTOBER 1986

COMPUTER DATA SYSTEMS, INC.
 One Curie Court
 Rockville, MD 20850
 (301) 921-7000

Clifford Kendall, Chairman and
 President
 Public Corporation, OTC
 Total Employees: 1,227
 Total Revenue, Fiscal Year End
 6/30/87: \$52,937,700

COMPUTER DATA SYSTEMS, INC.
FIVE-YEAR FINANCIAL SUMMARY
 (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	6/87	6/86	6/85	6/84	6/83
Revenue	\$ 52,938	\$ 54,571	\$ 55,127	\$ 54,871	\$ 40,533
• Percent increase (decrease) from previous year	(3%)	(1%)	-	35%	58%
Income before taxes	\$ 3,221	\$ 4,246	\$ 5,111	\$ 5,141	\$ 3,731
• Percent increase (decrease) from previous year	(24%)	(17%)	(1%)	38%	84%
Net income	\$ 1,760	\$ 2,338	\$ 2,946	\$ 2,878	\$ 2,082
• Percent increase (decrease) from previous year	(25%)	(21%)	2%	38%	71%
Earnings per share	\$ 0.61	\$ 0.77	\$ 0.96	\$ 0.93	\$ 0.68
• Percent increase (decrease) from previous year	(21%)	(20%)	3%	37%	62%

- CDSI management attributes revenue declines primarily to the completion of several large contracts during the year without a corresponding replacement of new contract awards. Net income declined in fiscal 1987 due to lower revenues, fixed price overruns, and lower interest and other income.

COMPUTER DATA SYSTEMS, INC.

SOURCE OF REVENUE

- A three-year financial summary by business segment, as provided by CDSI, follows:

COMPUTER DATA SYSTEMS, INC.
BUSINESS SEGMENT FINANCIAL SUMMARY
(\$ thousands)

ITEM	FISCAL YEAR	6/87	6/86	6/85
Revenue				
• Professional services	\$ 38,993	\$ 41,800	\$ 41,759	
• Data processing support services	23,545	21,580	21,165	
• Intersegment (a)	(9,600)	(8,809)	(7,797)	
Total	\$ 52,938	\$ 54,571	\$ 55,127	
Income before taxes				
• Professional services	\$ 2,052	\$ 3,106	\$ 2,922	
• Data processing support services	717	478	1,546	
• Interest and other income	452	662	643	
Total	\$ 3,221	\$ 4,246	\$ 5,111	

- (a) Intersegment revenue represents primarily unit price costs billed for use of data processing support services.
- Approximately 73% of CDSI's fiscal 1987 revenue was derived from professional services and 27% from software package licenses, clearinghouse services, processing services, and turnkey systems.
- For fiscal 1987, 1986, and 1985, substantially all professional services revenue and 59%, 69%, and 66%, respectively, of data processing support services revenue were derived from federal government agencies.

COMPANY PROFILE

COMPUTER DATA SYSTEMS, INC.
One Curie Court
Rockville, MD 20850
(301) 921-7000

Clifford Kendall, Chairman and
President
Public Corporation, OTC
Total Employees: 1,103
Total Revenue, Fiscal Year End
6/30/86: \$54,570,700

THE COMPANY

- Computer Data Systems, Inc. (CDSI), founded in 1968, provides professional and processing services, software products, and turnkey systems to over 100 federal, state, and local governments, nonprofit organizations, and commercial clients nationwide.
- Fiscal 1986 revenue was \$54.6 million, a 1% decrease from fiscal 1985 revenue of \$55.1 million. Net income declined 21%, from \$2.9 million in fiscal 1985 to \$2.3 million in fiscal 1986. A five-year financial summary follows:

COMPUTER DATA SYSTEMS FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

ITEM	FISCAL YEAR	6/86	6/85	6/84	6/83	6/82
Revenue		\$ 54,571	\$ 55,127	\$ 54,871	\$ 40,533	\$ 25,714
• Percent increase (decrease) from previous year		(1%)	-	35%	58%	56%
Income before taxes		\$ 4,246	\$ 5,111	\$ 5,141	\$ 3,731	\$ 2,029
• Percent increase (decrease) from previous year		(17%)	(1%)	38%	84%	22%
Net income		\$ 2,338	\$ 2,946	\$ 2,878	\$ 2,082	\$ 1,219
• Percent increase (decrease) from previous year		(21%)	2%	38%	71%	22%
Earnings per share		\$ 0.77	\$ 0.96	\$ 0.93	\$ 0.68	\$ 0.42
• Percent increase (decrease) from previous year		(20%)	3%	37%	62%	20%

COMPUTER DATA SYSTEMS, INC.

- CDSI management attributes decreases in revenue and earnings to the following:
 - No large new contracts were awarded to CDSI to offset completion of other contracts.
 - Reduced staffing levels on several contracts resulted from the effects of the Gramm-Rudman legislation.
 - Several fixed price contracts were overrun.
 - Recently acquired building and computer resources were under used.
- CDSI is organized into two major groups as follows:
 - The Professional Services Group consists of three divisions:
 - The Defense Systems Division supports Department of Defense (DoD) clients with systems engineering, telecommunications, and software support professional services. DoD is a long-standing CDSI client with several U.S. Navy customers dating back to the early 1970s.
 - The Consulting and Programming Division provides systems development, facilities management, and technical support professional services to government and commercial clients located primarily in the Washington, D.C. area.
 - The Government Services Division provides professional services to clients located outside of the immediate Washington, D.C. metropolitan area, primarily through contracts with the General Services Administration (GSA).
 - The Processing Services Group provides financial software products, processing services, and turnkey systems through four divisions:
 - The Financial Systems Division develops, markets, and maintains financial application software products to federal and state government clients.
 - The Union Systems Division provides turnkey systems for trade unions and nonprofit organizations.
 - The Clearinghouse Division provides full-service support in the areas of inventory control; mail room processing; pull, pack, and ship processing; document archival and storage; Class A secure storage; and storage of magnetic media.
 - The Data Systems Division provides data processing support for both internal use and value-added use by the company's clients.

COMPUTER DATA SYSTEMS, INC.

- As of June 30, 1986, CDSI had 1,103 employees. The company currently has approximately 1,200 employees, segmented as follows:

Professional Services Group	740
Processing Services Group	237
General and administrative	223
	1,200

- CDSI professional services competitors include Computer Sciences Corporation, Planning Research Corporation, Electronic Data Systems, Vanguard Technologies Corporation, OAO Corporation, and American Management Systems. Competition in the software area comes from Management Science America.

KEY PRODUCTS AND SERVICES

- A three-year financial summary by business segment, as provided by CDSI, follows:

COMPUTER DATA SYSTEMS, INC.
BUSINESS SEGMENT FINANCIAL SUMMARY
(\$ thousands)

ITEM	FISCAL YEAR	6/86	6/85	6/84
Revenue				
. Professional services	\$ 41,800	\$ 41,759	\$ 43,204	
. Data processing support				
services	21,580	21,165	17,029	
. Intersegment (a)	(8,809)	(7,797)	(5,362)	
Total	\$ 54,571	\$ 55,127	\$ 54,871	
Income before taxes				
. Professional services	\$ 3,106	\$ 2,922	\$ 3,776	
. Data processing support				
services	478	1,546	1,054	
. Interest and other				
income	662	643	311	
Total	\$ 4,246	\$ 5,111	\$ 5,141	

(a) Intersegment revenue represents primarily unit price costs billed for use of data processing support services.

COMPUTER DATA SYSTEMS, INC.

- Approximately 77% of CDSI's fiscal 1986 revenue was derived from professional services, 15% from software package licenses, 5% from clearinghouse services, and the remaining 3% from other processing services and turnkey systems.
 - CDSI management estimates that software revenue will represent a greater percent of total revenue in future years.
- The majority of CDSI's professional services revenue is derived from the federal government.
 - Professional services provided include management consulting, project management, systems development, and programming services, including design, installation, testing, training and support, and facilities management.
 - Areas of expertise include telecommunications, data base management systems, risk analysis, and security audit services.
 - Recent professional services contracts include the following:
 - . In August 1986 CDSI was awarded a one-year contract, with two one-year options, to provide data base administration, data center operations, telecommunications, training, quality assurance, and related life cycle software support to the Naval Aviation Logistics Center (NALC), Patuxent River (MD), and the Workload Control Division, Naval Air Rework Facility (Norfolk, VA).
 - Work performed under the contract will support the NALC Management Systems Development Directorate's mission which is to design, develop, implement, and support standardized management information systems. The principal users of these systems are Naval Air Rework Facilities, major industrial activities which perform depot level maintenance on Naval aircraft, and other items of equipment or components.
 - The initial award is for \$9.4 million. The contract has an overall potential value of \$22.8 million if both options are exercised.
 - . In July 1986 CDSI was awarded a one-year contract, with two one-year options to provide EDP operations and maintenance support services to the Department of Interior's Office of Surface Mining, Reclamation, and Enforcement. The contract has a potential value of \$11 million.
 - . In February 1986 CDSI was awarded a one-year follow-on contract, with two one-year options, by the U.S. Department of

COMPUTER DATA SYSTEMS, INC.

Labor to provide systems maintenance and enhancement, design development, and implementation EDP support services to the Employment Standards Administration, Office of Workers' Compensation Programs, Office of Federal Contract Compliance, Office of Administration and Planning, and the Division of Wage and Hour. The contract has a potential value of approximately \$11 million over the three-year period. The new contract represents an increase in total value of \$7 million over the previous three-year contract.

- In February 1986 CDSI was awarded a one-year contract, with two one-year options, with the U.S. Information Agency to provide applications development, software maintenance, and operational support. The contract has a potential value of \$1 million over the three-year period.
- In November 1985 CDSI was awarded a one-year contract, with four one-year options, with the U.S. Department of Treasury, Financial Management Service, for the continued on-site support of the Department's Check Claims Group (CCG) collection operation. The operation's responsibilities include providing accounting staff, on-line billing reclamation processing, microfiche, and mailing services. The automated systems which serve the collection operation are based on CDSI's Financial Accounting and Reporting System (FARS) and Debt Management and Collection System (DMCS). Under this collection effort the CCG staff is responsible for over \$60 million in annual receipts. The contract is valued at approximately \$5 million over the initial year and the four one-year options.
- In October 1985 CDSI was awarded a three-year follow-on contract by the U.S. Department of Labor to provide systems EDP professional and technical support services to the Directorate of Information Resources Management. The award is for one year, with two one-year options and has a potential value of over \$5 million over the three-year period. The new contract represents an increase in total value of approximately \$3 million over the previous three-year contract.
- In September 1985 CDSI was awarded a two-year contract by the U.S. Department of Transportation, Federal Highway Administration (FHWA) to design, develop, and implement a Fiscal Management Information System (FMIS), using DBMS technology. This two-phased project, when completed, will allow FHWA field offices to be accessed nationwide by FHWA program offices at headquarters in Washington, D.C. The total estimated price for this contract is over \$1 million.

COMPUTER DATA SYSTEMS, INC.

- Ongoing work currently being performed by CDSI includes:
 - EDP risk analysis and security audit services to various federal agencies under GSA contracts.
 - EDP support services for GSA Regions 2 and 3.
 - Ongoing support for the U.S. Navy's NARDAC and NAVTASC programs.
 - Support services for the Departments of Energy and Labor.
- CDSI's Processing Services Group offers application software products, turnkey systems, processing and related programming support, keypunching and data entry services, microfiche conversion, and mailing, warehousing, and inventory control services. Approximately 69% of Processing Services Group revenue in fiscal 1986 was derived from the federal government. Clients also include national labor unions and trade associations, universities, nonprofit organizations, and commercial firms.
 - The Financial Systems Division develops, markets, and maintains three proprietary financial software packages targeted to federal and state government. The products, available for in-house use, or as a processing service, meet Treasury, OMB, and General Accounting Office requirements and include the following:
 - The Financial Accounting and Reporting Systems (FARS) is a general accounting package providing general ledger, funds control, accounts payable, accounts receivable, regulatory reporting, and budgeting into an integrated data base.
 - FARS runs on IBM compatible mainframes, Honeywell and Sperry mainframes, HP 3000 and Wang VS 100 minicomputers and licenses for \$127,000 to \$210,000. There are over 40 FARS installations.
 - In October 1985 FARS was selected by Interstate Conference of Employment Security Agencies, Inc. (ICESA) as the standard licensed system for installation in their member state affiliates. Thirty-three states plan to upgrade their financial systems through CDSI beginning in August 1986.
 - Cash Management System (CMS) is a cash disbursement management system for government agencies.
 - CMS was designed for handling grant and loan programs and everyday trade payments.

COMPUTER DATA SYSTEMS, INC.

- Capabilities include funds control, electronic funds transfer, Treasury letters of credit, and automated SF-1166 disbursements.
- CMS runs on IBM and compatible mainframes and licenses for \$127,000.
- There are currently two systems installed.
- . Debt Management and Collection System (DMCS) was designed to automate government agency collection processes.
 - The system tracks receivables ranging from travel advances to default loans, and features daily cash collection reporting, debt tracking, billing, and capabilities such as Treasury lockbox, IRS 1099G, and credit bureau reporting.
 - The package is used to levy interest and late charges, generate demand and delinquency letters, and provide for on-line queries of complete collection histories.
 - The Department of Housing and Urban Development is currently using DMCS in their debt collection programs.
 - DMCS runs on IBM and compatible mainframes and licenses for \$127,000 to \$300,000.
 - There are currently three systems installed.
- The Union Systems Division markets turnkey systems for trade unions and nonprofit organizations based on its Labor Affiliates Processing Systems (LAPS) software and Altos 886-T50 microcomputers.
 - . LAPS provides access to membership information, dues payment records, contractor and job site tracking and automated job referral lists.
 - . The turnkey systems range in price from \$19,900 to \$29,900 including hardware and software.
 - . LAPS is currently being used in more than 100 union locals and district council offices in the U.S. and Canada. CDSI is the exclusive contractor for seven AFL-CIO international affiliates representing more than 14 million people in the U.S. and Canada.
- The Clearinghouse Division manages and maintains over 150,000 square feet of warehouse space and provides full-service support to clients in the following areas:

COMPUTER DATA SYSTEMS, INC.

- The development, implementation, and operation of inventory control systems.
- Mailing and mail list maintenance services.
- Storage for magnetic tape and archival microfilm.
- The collection, storage, classification, and distribution of literature, catalogs, documents, tape, disks, and microfilm.
- Data collection, storage indexing, analysis, reporting, and distribution.
- The Data Systems Division provides data processing support for internal and client use.
- CDSI's Electronic Typography System (ETS) data base publishing software product is no longer actively marketed.

INDUSTRY MARKETS

- Approximately 93% of CDSI's fiscal 1986 revenue was derived from the federal government. The remaining 7% was derived from labor and nonprofit organizations, professional and trade associations, universities, and commercial clients.

GEOGRAPHIC MARKETS

- Approximately 75% of fiscal 1986 revenue was derived from clients in the Washington, D.C. metropolitan area. Clients are located throughout the U.S., with concentrations in the mid-Atlantic and southeastern regions.
- Regional offices are located in Huntsville (AL), Metuchen (NJ), and Norfolk (VA).
 - Additional major performance sites are located in Alabama, California, Florida, Georgia, Illinois, Kentucky, Mississippi, North and South Carolina, New Jersey, Pennsylvania, Tennessee, Texas, Virginia, Washington, Hawaii, and in Guam, Puerto Rico, Naples, and London (in support of U.S. government contracts).

COMPUTER HARDWARE AND SOFTWARE

- Two IBM 4341s running under MVS and one IBM 3083 running under OS/MVS are installed at CDSI's Rockville data center.
- CDSI's network is accessed via Telenet.

FINANCIAL UPDATE TO HIGHLIGHT DATED MARCH 1983

COMPUTER DATA SYSTEMS, INC.
 7315 Wisconsin Avenue
 Bethesda, MD 20814
 (301) 657-1730

Clifford Kendall, Chairman and
 President
 Public Corporation, OTC
 Total Employees: 1,509
 Total Revenue, Fiscal Year End
 6/30/83: \$40,533,400

**COMPUTER DATA SYSTEMS
 FIVE-YEAR FINANCIAL SUMMARY
 (\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	6/83	6/82	6/81	6/80	6/79
Revenue	\$ 40,533	\$ 25,714	\$ 16,455	\$ 14,838	\$ 8,694
• Percent increase from previous year	58%	56%	11%	71%	38%
Income before taxes	\$ 3,731	\$ 2,029	\$ 1,669	\$ 1,392	\$ 916
• Percent increase from previous year	84%	22%	20%	52%	141%
Net income	\$ 2,082	\$ 1,219	\$ 1,001	\$ 804	\$ 500
• Percent increase from previous year	71%	22%	25%	61%	22%
Earnings per share (a)	\$ 0.68	\$ 0.42	\$ 0.35	\$ 0.29	\$ 0.19
• Percent increase from previous year	62%	20%	21%	53%	NA

(a) Restated to reflect 100% stock dividend paid in March 1983.

COMPUTER DATA SYSTEMS, INC.

- An additional breakout of revenue by function follows (\$ thousands):

	6/82	6/81
Revenue		
Professional services	\$ 33,720	\$ 19,314
Data processing support services	11,519	9,595
Intersegment	<u>(4,706)</u>	<u>(3,195)</u>
Total	\$ 40,533	\$ 25,714
 Income from operations		
Professional services	\$ 3,172	\$ 1,442
Data processing support services	393	407
Interest and other income	<u>166</u>	<u>180</u>
Total	\$ 3,731	\$ 2,029

SOURCE OF REVENUE

- Approximately 83% of Computer Data Systems' fiscal 1983 revenue was derived from professional services, 15% from processing services, and less than 2% from software products and turnkey systems.

COMPANY HIGHLIGHT

COMPUTER DATA SYSTEMS, INC.
7315 Wisconsin Avenue
Bethesda, MD 20814
(301) 657-1730

Clifford Kendall, Chairman and
President
Public Corporation, OTC
Total Employees: 1,017
Total Revenue, Fiscal Year End
6/30/82: \$25,714,400

THE COMPANY

- Computer Data Systems, Inc. (CDSI), founded in 1968, provides professional and processing services, software products, and turnkey systems to over 200 federal government, nonprofit organization, and commercial clients. On-site services are performed for customers at over 30 locations across the U.S.
- Fiscal 1982 revenue increased 56% to \$25.7 million from \$16.5 million in 1981. Net income was \$1.2 million, an increase of 22% over \$1 million in fiscal 1981. A five-year financial summary follows:

COMPUTER DATA SYSTEMS
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM \ FISCAL YEAR	6/82	6/81	6/80	6/79	6/78
Revenue	\$ 25,714	\$ 16,455	\$ 14,838	\$ 8,694	\$ 6,291
. Percent increase from previous year	56%	11%	71%	38%	9%
Income before taxes	\$ 2,029	\$ 1,669	\$ 1,392	\$ 916	\$ 380
. Percent increase from previous year	22%	20%	52%	141%	55%
Net income	\$ 1,219	\$ 1,001	\$ 804	\$ 500	\$ 410
. Percent increase from previous year	22%	25%	61%	22%	166%
Earnings per share (a)	\$ 0.83	\$ 0.69	\$ 0.58	\$ 0.37	\$ 0.30
. Percent increase from previous year	20%	19%	57%	23%	N/A

(a) Restated to reflect two-for-one stock split paid in June 1982.

COMPUTER DATA SYSTEMS, INC.

- An additional breakout of CDSI's revenue by function follows:

	6/82	6/81
Revenue:		
Professional services	\$ 19,314	\$ 10,267
Data processing support services	9,595	8,741
Intersegment (Data Services Division)	<u>(3,195)</u>	<u>(2,553)</u>
TOTAL	\$25,714	\$16,455
Income from operations:		
Professional services	\$ 1,442	\$ 575
Data processing support services	407	800
Interest and other income	<u>180</u>	<u>294</u>
TOTAL	\$ 2,029	\$ 1,669

- Increase in fiscal 1982 revenue was primarily due to a major contract with the General Services Administration (GSA) along with new contract awards and renewals in both professional and processing services. In fiscal 1981 approximately 90% of the revenue increase was attributable to the processing services segment.
 - Start-up costs associated with the GSA contract caused net income to increase at a slower rate than revenue. Higher operating costs associated with data center equipment and software upgrades resulted in a decrease in income from operations for processing services.
- Revenue for the six months ending December 31, 1982 was \$18.2 million, an increase of 69% over \$10.8 million for the same period in 1981. Net income rose 81% to \$1 million from \$552,500 in 1981.
- The company declared a stock split on February 8, 1983 to be distributed March 8, 1983.
- CDSI is organized into two major groups, six divisions, and a subsidiary operation.
 - Professional Services Group:
 - . The Consulting/Systems Development Division provides clients with a wide variety of consulting, systems design, and programming support.
 - . The Communications Systems Division provides communications services primarily for the U.S. Navy.

COMPUTER DATA SYSTEMS, INC.

- Processing Services Group:
 - The Financial Systems Division provides clients with accounting and financial systems services.
 - The Information Systems Division combines systems design, development, maintenance, and production processing to form a total corporate service.
 - The Electronic Composition Division provides electronic photo-composition services through CDSI's proprietary Electronic Typography System (ETS).
 - The Data Services Division operates the CDSI data center and provides mailing, fulfillment, warehousing, inventory, messenger, and delivery services in support of other CDSI operations.
- Computer Data Systems Sales, Inc. is a wholly owned subsidiary established in April 1982 to market turnkey systems and related services.
- CDSI had 1,017 employees in June 1982, up from 495 in June 1981, primarily as a result of hiring for the GSA contract. The company currently employs over 1,300 people.
- CDSI competitors include Computer Sciences Corporation, Planning Research Corporation, Electronic Data Systems Corporation, and many smaller firms offering programming support and processing services.

KEY PRODUCTS AND SERVICES

- Approximately 75% of CDSI's fiscal 1982 revenue was derived from professional services, 24% from processing services, and 1% from software products.
- The majority of CDSI's professional services revenue is derived from the federal government.
 - Professional services include management consulting, systems design, programming, conversion and implementation, requirements analysis, feasibility studies, and configuration and facilities management.
 - Areas of expertise include communications and data base management systems and applications experience in inventory, personnel, membership, financial, health, and resource management systems.
 - Recent professional services contracts include the following:
 - In August 1981 CDSI was awarded a one-year contract with two one-year options and a potential value of \$40 million by the Automated Data and Telecommunications Service of the General Services Administration (GSA). Professional services

COMPUTER DATA SYSTEMS, INC.

provided include systems and operations analysis, administrative/business and scientific/engineering applications programming, software conversion, computer operations, data entry, and technical documentation.

- GSA clients include federal civilian agencies and the U.S. Army Missile Command, Air Force Technical Applications Center, Naval Electronic Systems Engineering Center, and other U.S. Department of Defense branches.
- Approximately 100 CDSI staff members are assigned to GSA's Interagency Data Systems Facility in Huntsville (AL), and more than 500 others are located throughout the mid-Atlantic and southeastern U.S. Offices have been opened in New York City, Pittsburgh, Philadelphia, Norfolk, Research Triangle Park (NC), and Pensacola (FL) in connection with the contract.
- The GSA exercised its first one-year contract option in mid-1982.
- . In September 1981 CDSI received a three-year, \$3 million contract with up to two years of optional work from the Agency for International Development (AID).
 - CDSI established and now operates a document and information handling facility in Bethesda (MD) for the transfer of technological information to developing countries.
 - Services include a range of library science, processing, micropublishing, photocomposition, and information distribution using AID's HP 3000 computer, which is installed at CDSI's Bethesda center.
- . CDSI increased its level of support to the Energy Information Administration (EIA) of the Department of Energy with the February 1982 signing of a one-year contract with two one-year options valued at over \$7 million.
 - CDSI provides professional services including functional requirements and systems analysis and design, testing, implementation, and documentation of EIA systems, which monitor current data on the nation's petroleum, natural gas, coal, electrical, and other energy sources.
 - More than 70 employees of CDSI and its principal subcontractor, GENASYS Corporation, are assigned to the project.

COMPUTER DATA SYSTEMS, INC.

- U.S. Department of Labor contracts, including:
 - A December 1981 contract for one year with two one-year options valued at \$3 million. Services include systems maintenance, enhancement, design, development, and implementation for the Employment and Training Administration, Unemployment Insurance Service, Continuous Wage Benefit History Project, Division of Actuarial Services, and the Trade Adjustment Assistant System.
 - A July 1982 one-year contract with two one-year options to provide professional services in support of the Office of the Inspector General at the Department of Labor. The contract is expected to generate revenue of approximately \$500,000 per year.
 - A September 1982 contract for one year with two one-year options valued at \$4 million to provide professional services to the Directorate of Information Technology.
- U.S. Navy contracts, including:
 - A three-year contract for the U.S. Navy Management Systems Support Office, awarded in mid-1982, to provide life cycle maintenance systems support for the Navy's Shipboard Nontactical ADP Program I (SNAP I).
 - Design, development, and implementation tasks performed in support of STARS, the Navy's Standard Accounting and Reporting System, under a subcontract to Deloitte, Haskins & Sells.
- CDSI's Processing Services Group offers processing and related programming support, keypunching and data entry services, microfiche conversion, and mailing, warehousing, and inventory control services. Approximately 43% of processing services revenue in fiscal 1982 was derived from the federal government. Clients also include national labor unions and trade associations, universities, nonprofit organizations, and commercial firms.
 - In addition to its batch, remote batch, and facilities management services, CDSI began offering interactive processing in late 1982.
 - Applications provided include photocomposition, general ledger, payroll, financial and management reporting, contract and project information reports and accounting, fee accounting, membership accounting, and contract and grant management systems.
 - Two proprietary products are offered both on the processing service and as software packages.

COMPUTER DATA SYSTEMS, INC.

- The Financial Accounting and Reporting System (FARS) is a general accounting package providing accounts payable, disbursement scheduling, revenue accounting, billing and cash receipts, payroll and cost distribution, general ledger, and financial reporting.
- Versions of FARS have been developed for specific markets including federal agencies, nonprofit organizations, personal services companies including law firms and consultants, and builders and contractors.
- FARS is available in batch and on-line versions running on IBM 370, 303X, and 43XX equipment under OS, DOS, and MVS. There are approximately 20 software installations of the product, which is priced from \$50,000 to \$100,000 depending on options selected.
- Electronic Typography System (ETS) is a data base publishing system that automates the phototypesetting process by creating typeset pages from textual data bases. Features include automatic pagination, running heads, single-level indexing, line justification, and footnote insertion.
- ETS runs on IBM 370, 303X, and 43XX equipment under OS/VSI, MVS, and DOS. There are approximately 10 installations of the software package, which is priced at \$4,500 plus processing usage charges.
- Universities with multiple publishing needs are primary composition and typography users. Publication design, text entry, manuscript coding, programming, and client training are available with photocomposition processing services.
- Recent Processing Services Group developments include the following:
 - In October 1982 CDSI was awarded a two-year facilities management contract with three one-year extensions valued at \$6 million by the Department of Housing and Urban Development (HUD) for software development and on-line processing for the maintenance and reporting of Title I defaulted mortgage loan accounts. The HUD software will be based on CDSI's Debt Management and Collection System software and will operate on CDSI computers.
 - Under a contract awarded in 1982 by the U.S. Treasury Department, CDSI will provide data entry, microfiche and mailing services, and accounting systems operations and support to a division of the Treasury. The contract, valued at over \$1 million, is for one year with a one-year option.

COMPUTER DATA SYSTEMS, INC.

- An advanced inventory management and order processing system was developed for a national medical equipment manufacturer in fiscal 1982 for processing at CDSI.
- A distributed processing system was developed in February 1983 for the central pension fund of a major international union, linking an IBM 4321 to CDSI mainframes.
- CDSI also offers a distribution service incorporating full warehousing and mailing services, including automated labeling, insertion, collation, stamping, metering, and delivery.
- CDSI's newly formed Computer Data Systems Sales, Inc. (CDSSI) subsidiary provides systems support services for hardware and software integration, installation, and maintenance, client training, and customized applications development. Turnkey systems sales are expected to contribute to revenue in fiscal 1983.
 - Products are marketed to national labor organizations and trade associations and other customers of CDSI's Processing and Professional Services Groups.
 - CDSSI is currently supplying turnkey systems based on Altos micro-computers to local trade union affiliates of the United Brotherhood of Carpenters and Joiners. Software includes accounting, word processing, and membership coordination applications.
 - The systems will also be made available for use in distributed processing. A version based on CDSI's FARS product is in development.
 - System pricing is from \$10,000 to \$30,000, depending on size.

INDUSTRY MARKETS

- Approximately 86% of CDSI's fiscal 1982 revenue was derived from the federal government. The remaining 14% was derived from labor and nonprofit organizations, professional and trade associations, universities, and commercial clients.

GEOGRAPHIC MARKETS

- Approximately 65% of fiscal 1982 revenue was derived from clients in the Washington (DC) metropolitan area. Clients are located throughout the U.S., with concentrations in the mid-Atlantic and southeastern regions.
- Regional offices are located in Huntsville (AL), Pensacola (FL), New York City, and Virginia Beach (VA).
 - Additional performance sites are located in Alabama, California,

COMPUTER DATA SYSTEMS, INC.

Florida, Georgia, Illinois, Kentucky, Mississippi, North and South Carolina, New Jersey, Pennsylvania, Tennessee, Texas, Virginia, Washington, Hawaii, and in Guam, Puerto Rico, Naples, and London.

COMPUTER HARDWARE AND SOFTWARE

- Two IBM 4341s running under MVS are installed at CDSI's Bethesda data center.
- CDSI's network is accessed via GTE Telenet.

COMPANY HIGHLIGHT



COMPUTER DATA SYSTEMS INC.
7315 Wisconsin Avenue
Bethesda, MD 20014
(301) 657-1730

Clifford Kendall, President
Public Corporation
Total Employees: 550
Revenues, Fiscal Year End
6/30/80: \$14,838,400

THE COMPANY

- Computer Data Systems Inc. (CDSI) was founded in 1968 to provide professional and processing services. The company went public in 1969, with stock trading on the OTC exchange.
- CDSI provides consulting, programming and data processing support services to federal, state and local governments, nonprofit institutions and commercial clients, primarily in the Washington (DC) area.
- CDSI reported revenues of \$14,838,400 in FY 1980, a 71% increase over FY 1979's revenues of \$8,693,800. Net income showed a gain of 61% over 1979.
- A five-year summary of CDSI's revenues follows:

COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

CDSI
FIVE-YEAR FINANCIAL SUMMARY
(FYE 6/30, \$ Thousands, Except Per Share Data)

ITEM	FISCAL YEAR	1980	1979	1978	1977	1976
Total Revenues		\$14,838	\$ 8,694	\$ 6,291	\$ 5,760	\$ 5,083
• Percent increase from previous year		71%	38%	9%	13%	35%
Income before taxes and extraordinary item		\$ 1,392	\$ 916	\$ 380	\$ 245	\$ 527
• Percent increase (decrease) from previous year		52%	141%	55%	(54%)	8%
Net Income		804	500	410(A)	154(A)	340
• Percent increase (decrease) from previous year		61%	22%	166%	(55%)	14%
Net income per share		\$ 1.44	\$ 0.91	\$ 0.74	\$ 0.27	\$ 0.62
• Percent increase (decrease) from previous year		58%	23%	174%	(56%)	9%

(A) Extraordinary item reported. Represents a tax benefit arising from the use of capital loss carry forward.

- An additional breakout of CDSI's revenues by function follows:

ITEM	FISCAL YEAR	1980	1979
Revenues:			
Professional services		\$10,093,900	\$5,261,800
Data processing support services		6,407,400	4,690,800
Intersegment (Data Services Division)		(1,662,900)	(1,258,800)
Total		\$14,838,400	\$8,693,800
Income from operations:			
Professional services		\$ 622,700	\$ 378,100
Data processing support services		733,400	478,800
Interest and other income		35,500	58,600
Total		\$1,391,600	\$ 915,500

COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

- Management attributes its success in FY 1980 to growth in revenues resulting from major contract awards from the federal government and higher profit margins in its processing services segment.
- The only year CDSI's profits did not increase in the last five years was in 1977. Profit margins were impacted by:
 - Startup costs associated with a new computer center and the purchase of an IBM 370/135.
 - Development costs for expansion of electronic composition and financial services applications.
 - A problem contract.
 - Acquisition of Forlines and Associates.
- CDSI is organized into two major groups and six divisions.
 - Professional Services Group:
 - The Consulting/Systems Development Division provides clients with a wide variety of consulting, systems design and programming support.
 - The Communications Systems Division provides communications services primarily for the U.S. Navy.
 - Processing Services Group:
 - The Financial Services Group provides clients with a broad spectrum of accounting and financial system services.
 - The Information Systems Division brings system design, system development, system maintenance and production processing services together in a total corporate service concept.
 - The Electronic Composition Division provides electronic photo-composition services through CDSI's proprietary Electronic Typography System (ETS).
 - The Data Services Division operates the CDSI data center and provides mailing, fulfillment, warehousing, inventory, messenger and delivery services in support of other CDSI operations.
- CDSI has grown by expanding its capabilities in programming support services and by acquisition. A history of acquisitions completed by the company follows:

COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

- In 1973, CDSI created a wholly owned subsidiary, the National Institute For Public Services, Inc., (NIPS), which published a credit union newsletter and Postal World. NIPS was subsequently sold in 1978 because it diverted too much management attention from CDSI's data processing activities.
- Electronic Composition, Inc., (formerly BNA Research, Inc.) was acquired in 1974. This acquisition provided the basic software for CDSI's existing photocomposition services.
- In 1976, CDSI acquired Forlines & Associates, a firm that specialized in financial and accounting support services. At the time of acquisition, Forlines had sales of approximately \$250,000.
- CDSI employs approximately 500 full-time and 50 part-time personnel.
- Major competitors of CDSI are Computer Sciences, Planning Research and other large and small companies offering programming support and processing services.

KEY PRODUCTS AND SERVICES

- Approximately 68% of CDSI's FY 1980 revenues were derived from professional services and 32% from processing services.
- All of CDSI's professional services revenues are derived from the federal government.
 - In the communications area, CDSI has experience in providing communications feasibility studies, requirements analysis, systems development, configuration management and operational site support for a range of automated communications systems.
 - Additional areas of application expertise include: inventory, personnel, membership, financial, health and resource management systems.
 - Major contracts held by CDSI's Professional Services Group include:
 - A contract with the U.S. Navy to provide communications software services in support of the Naval Telecommunications Automation Program. Awarded in September 1979, the value of the contract for its base year is approximately \$3.5 million. If the four one-year options are exercised, CDSI will receive additional revenues in excess of \$17 million.
 - The Department of Energy contracted with CDSI in December 1978 to support its activities in energy data collection and reporting to Congress and the public. This contract has contributed more than \$5 million in revenues during the last two years.

COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

- The National Institute of Alcohol Abuse awarded CDSI a contract in October 1979 to operate the National Alcoholism Program Information System (NAPIS). Under this contract, the company provides the facilities, equipment and personnel to perform systems design, programming, data entry, training and other support services.
- CDSI's processing services revenues have been growing consistently since the firm started offering services.
 - CDSI started providing processing services in 1974 by renting computer time from other companies. In 1977, the company established its own data center.
 - Applications provided include photocomposition, general ledger, payroll, financial and management reporting, contract and project information reports, and accounting, fee accounting, membership accounting, and contract and grant management systems.
 - Two proprietary products are offered:
 - The Financial Accounting and Reporting System (FARS) provides general accounting and financial reporting functions in addition to project control.
 - Electronic Typography System (ETS) is a data base publishing system that creates typeset pages from created textual data bases. Typeset, graphic-arts-quality pages are automatically produced from the simple, typewriter-like text, which is free of composition codes.

INDUSTRY MARKETS CDSI derives 78% of its total revenues from the federal government. The remaining 22% of revenues stems from commercial and non-profit organizations.

GEOGRAPHIC MARKETS Virtually all of CDSI's revenues derive from government agencies and companies located within the Washington (DC) metropolitan area.

COMPUTER HARDWARE AND SOFTWARE

- CDSI's data center is located at its headquarters. Equipment installed includes:
 - One IBM 370/135 OS (some DOS is run for a few clients).
 - One IBM 370/155, OS.

COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

- Two IBM 4341s and one 4331 are on order. One 4341 may replace the 155, the other two will be used for additional capacity.
- All processing services offered by CDSI are currently run in a batch mode. An RJE capability for its financial applications is currently in a testing mode, with plans to have it operational by the end of 1980.

6 of 6
August 1980

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COMPANY HIGHLIGHT



COMPUTER DATA SYSTEMS, INC.
7315 Wisconsin Avenue
Bethesda, MD 20014
(301) 657-1730

Clifford M. Kendall, President
Public corporation
Total employees: 275
Total revenues, fiscal year end
6/30/78: \$6.3 million

THE COMPANY

- Computer Data Systems, Inc. (CDSI) was founded in July 1968, as a Maryland Corporation. It is traded on the Boston Stock Exchange and over-the-counter on NASDAQ.
- CDSI provides management consulting, information systems development, programming, and data processing services to approximately 100 clients in the federal, state, and local governments, and the private sector.
- Profitable since 1970, the company had revenue of \$6.3 million and net profit of \$410,000 in 1978. Increases in revenues and consistent profitability are expected to continue.
- CDSI's major competitors are Computer Sciences, Planning Research, American Management Systems, Systems Development Corporation, Service Bureau Company, and Automatic Data Processing.

KEY PRODUCTS AND SERVICES

- The company operates predominantly in two business segments, professional services and data processing support services.
 - Professional services encompass consulting, systems design, and programming.
 - Data processing support services include a variety of activities primarily concerned with the processing of data for customers. Services may range from the complete processing and preparation of reports from data supplied by customers, including related programming support, to individual specialized services such as keypunching.
- Forty percent of CDSI's total business is done in the data processing services segment, with the remaining 60% being performed in the professional services segment of the business. Approximately 70% of all business is done with the Federal Government.
- Specific data processing services include:

COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

- FARS (Financial Accounting and Reporting System): Available on either a service or license basis. FARS is a flexible and powerful system that provides extensive general ledger control and management reporting capabilities to a broad spectrum of users including the Executive Office of the President of the United States. FARS is modular and designed to support the accounting and reporting needs of both not-for-profit and profit-oriented organizations. It has a full appropriation accounting module for use in governmental accounting applications. FARS has proven to be easily installed and simple to use in a variety of public and private organizations.
- ETS (Electronic Typography System): Provides full capabilities from initial text input from either magnetic media or keyboards, to text management through the output of fully made-up pages of camera-ready copy. ETS has made it possible to capture and manage large data bases of information and then extract portions of the data for publication in graphic arts-quality formats.
- CDSI: Provides specialized support requiring the melding of a bonded fulfillment activity (mail and cash receiving handling, depositing and accounting with inventory handling and shipping capabilities) with data processing activities. The firm is able to handle jobs that require the design of systems, mailing services, fulfillment services, and allied data processing support services.

APPLICATIONS CDSI's processing service provides general business applications.

INDUSTRY MARKETS

- Seventy percent of revenue is derived from the Federal Government, a decrease of 25% since 1973. The remaining 30% of revenues, generated by 50% to 70% of the total client base, comes from commercial customers: lawyers, associations, construction firms, labor unions, and publishing houses.
- Government revenues include a \$2 million per year Navy contract for a worldwide communication system. This is a competitively bid contract renewable every three years. Although CDSI anticipates it will retain the contract, its loss would substantially hurt CDSI's revenues.

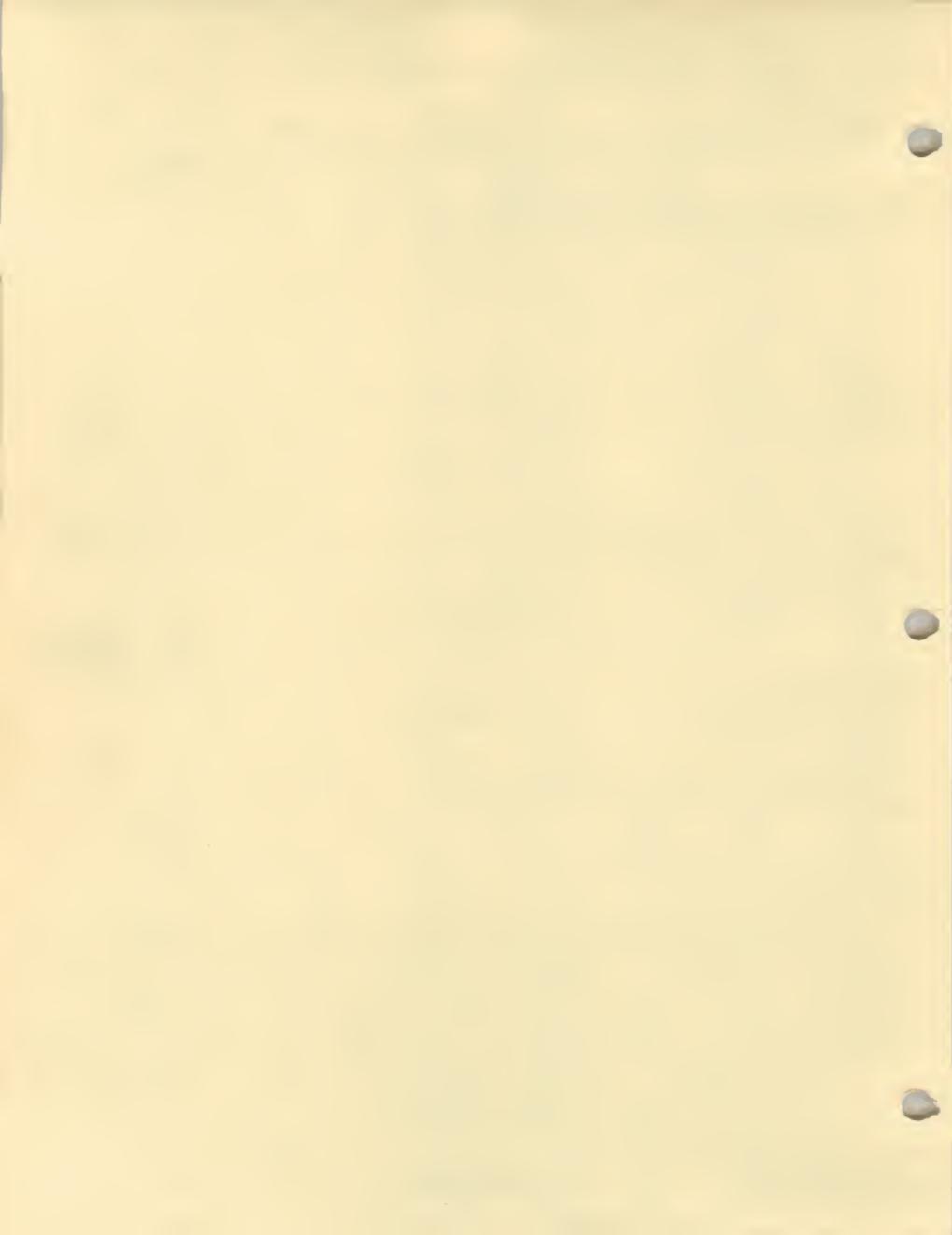
GEOGRAPHIC MARKETS Almost all revenues are generated by clients in the Washington, D.C. area.

COMPUTER HARDWARE AND SOFTWARE

- CDSI has hardware for data entry, data processing, photocomposition, and mailing services.
- The hardware includes:

COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

- IBM 370/135 w/IMM byte memory, 10 tapes, 14 disks, 2 printers, and card read-punch.
- 2 Mohawk 2400 text entry systems with 3 tapes, 4 disks, card reader, printer and 14 key stations.
- Magnacraft labeler, Philipsburg inserters, Baum folders, and other mailing support equipment.



COMPANY HIGHLIGHT

COMPUTER DATA SYSTEMS, INC.
7315 Wisconsin Avenue
Bethesda, MD 20014
(301) 652-9333

Clifford M. Kendall, President
Public corporation
Total employees: 250 full time
Total revenues, fiscal year end 6/30/76: \$5.4M

COMPANY BACKGROUND

- Computer Data Systems, Inc. (CDSI) was founded in July 1968, as a Maryland corporation. It is traded on the Boston Stock Exchange.
- CDSI provides management consulting, information systems development, programming, and processing services to approximately 100 clients in the federal, state, and local governments and the private sector.

OVERALL ASSESSMENT

- Profitable since 1970, the company had \$340,000 net profit in 1976. Despite expected lower earnings in 1977 due to the purchase of an IBM 370/135, CDSI anticipates fiscal year end 1977 revenues of \$6.5 million to be profitable. Prior to 1977, CDSI leased computer time and keypunch services from other vendors.
- CDSI's major competitors are Planning Research, Computer Sciences, American Management Systems, Aztech, Systems Development Corporation, Service Bureau Company, and Automatic Data Processing.
- CDSI has two wholly owned subsidiaries: Electronic Composition Inc. (ECI) provides computerized photocomposition and text management services; the National Institute of Public Services Inc. (NIPS), a publishing services organization, provides newsletters for credit unions and postal users.
- CDSI made two acquisitions in 1976:
 - It purchased assets, user base, products, and equipment from Autocomp, a photocomposition company. The equipment, an IBM 360/30, was subsequently sold; the user base was added to that of ECI.
 - CDSI also acquired Forlines and Associates, a batch processing service bureau. This acquisition increased CDSI's data processing user base and added three services to CDSI's current offering: payroll, fee accounting for lawyers, and a building information system.

COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

- Approximately 60% of CDSI revenues is generated by systems design and contract programming services for 30 to 40 clients.
- The remaining 40% of revenues is generated by batch processing, mailroom, keypunching, and photocomposition services for approximately 60 clients.
- Specific services include the following:
 - FARS (Financial Reporting System). Available on a service bureau or software license basis, FARS is a complete modular accounting package and currently has 10 to 12 users.
 - Builders Information System, with 8 users, is an accounting and management system.
 - ETS (Electronic Typesetting System), with 20 to 30 users, provides complete photocomposition and printing services. It is available as service or package.
 - Fee accounting for lawyers has 3 users.
 - Mail list maintenance and membership accounting has 5 to 10 users.
 - Additional services include payroll, accounts payable, accounts receivable, and inventory.
- Company philosophy dictates offering an increasing variety of services to meet client needs. At present, 10% of CDSI's clients use more than one service and the company expects this figure to increase steadily.
 - Batch processing and mailroom services are primary combination.
 - Photocomposition will have increasing significance as add-on service.

APPLICATIONS Ninety percent of applications revenues is generated by general business processing, including accounting and inventory control. By year end 1978, this will decrease to 80% of the total applications revenues. Specialty applications - photocomposition, text editing, and communication systems - will increase to 20% from their current 10% by year end 1978.

INDUSTRY MARKETS

- Seventy percent of revenues is derived from the federal government, a decrease of 25% since 1973. The remaining 30% of revenues, generated by 60% to 70% of the total client base, come from commercial customers: lawyers, associations, construction firms, and publishing houses.

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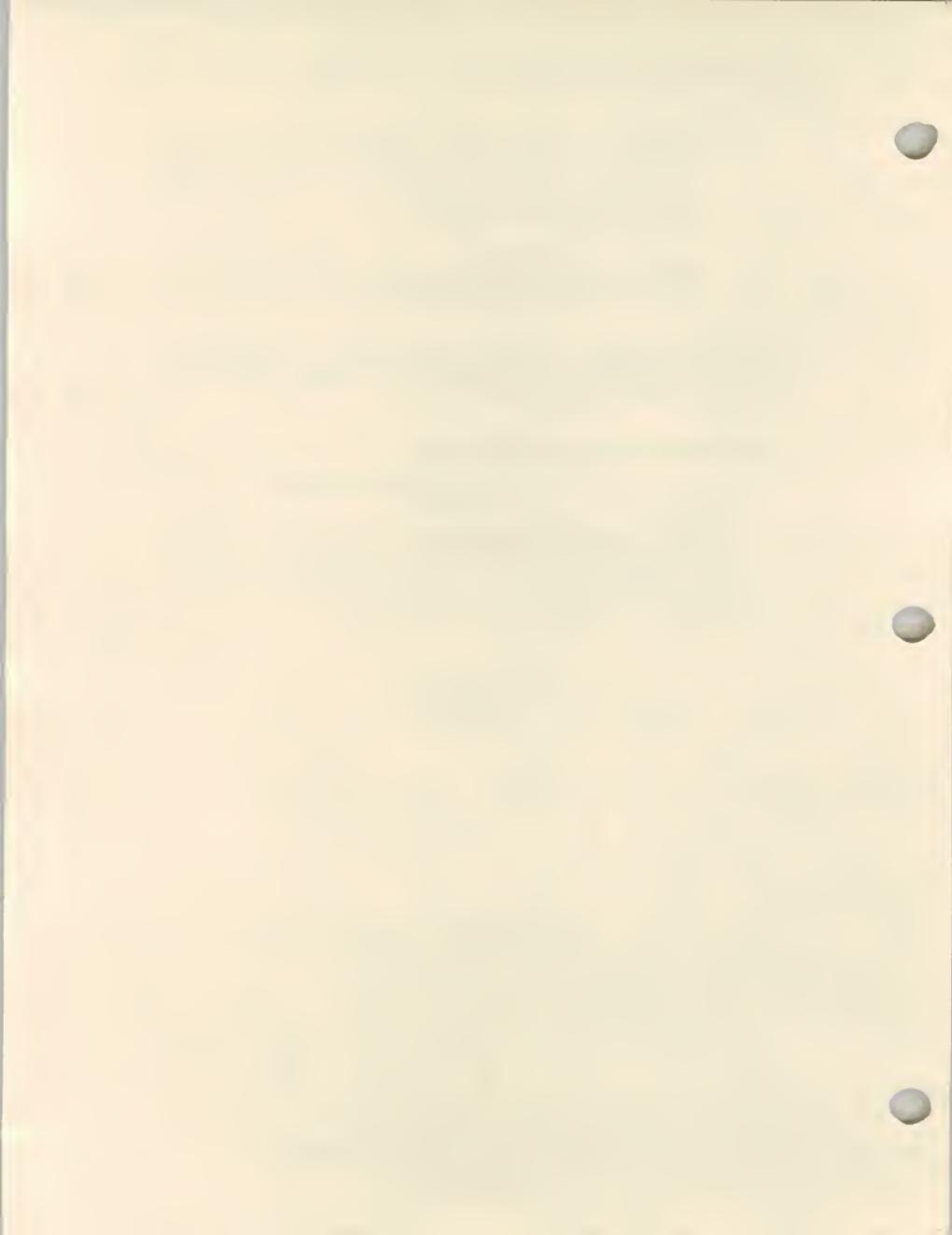
COMPANY HIGHLIGHT/COMPUTER DATA SYSTEMS, INC.

- Government revenues include a \$2 million per year Navy contract for a worldwide communication system. This is a competitively bid contract renewable every three years. Although CDSI anticipates it will retain the contract, its loss would substantially hurt CDSI's revenues.
- The company also has several other large contracts ranging from \$500,000 to \$1 million per year with federal government agencies and departments.

GEOGRAPHIC MARKETS At least 98% of total revenues is generated by clients in the Washington, D.C. area. The remaining revenues are distributed throughout the country.

COMPUTER HARDWARE AND SOFTWARE

- CDSI has hardware for data entry, data processing, photocomposition, communications, and mailing services.
- The data processing and photocomposition hardware includes an IBM 370/135, OS/DOS, Mohawk 2400, a Bell Data Phone 4800 communications controller, 3 Anderson Jacobson 841s, 7 tapes, 4 disks, and 3 high speed printers.



Dropped
1/81

COMPANY HIGHLIGHT

COMPUTER DYNAMICS INC.
100 Hegenberger Road
Oakland, CA 94621
(415) 635-5800

Don Rocha, President
Wholly owned subsidiary of
Central Banking Systems, Inc.
Total employees: 155
Total revenues fiscal year end
12/31/77: \$5,000,000*
Non-captive revenues:
\$2,000,000*

THE COMPANY

- Computer Dynamics Inc. (CDI) was incorporated in California about 1967. Between 1967 and 1974 several acquisitions were made to expand its computer services capability. In 1974 CDI was acquired by Central Banking Systems, Inc. CDI currently provides mainly processing services, turnkey systems and some professional services to financial institutions.
- Revenues for fiscal 1978 are expected to remain approximately the same as for fiscal 1977.
 - Management states that CDI is profitable.
 - Central Banking Systems, the parent company, generates about 60% of revenues or approximately \$4 million.
- The 155 employees are distributed functionally as follows:

Marketing/sales	2%
Software services/customer support	6
Computer operations	49
General and administrative	5
Programming	20
Bank reconciling	18
	100%

KEY PRODUCTS AND SERVICES

- CDI provides specialized computer services to seven banks with a total of 75 branches, 35 credit unions, and several medical professionals. Raw computer time sales are provided to about 20 additional users. Non-captive revenues of approximately \$2 million for fiscal 1977 were generated by the following types of computer services:
 - Processing services, both batch and remote batch.
 - Professional services.
 - Turnkey systems.

*Management estimate

October 1978

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COMPANY HIGHLIGHT/COMPUTER DYNAMICS, INC.

- Processing services consist of such financial and accounting applications as general ledger, accounts receivable, accounts payable, fixed asset accounting, and computation of interest on installment loans and savings accounts.
 - The majority of applications are specialized and targeted at banks and credit unions.
 - Medical practitioners are the target of an accounts receivable applications package that has been tailored to their needs.
 - Sale of raw computer time to a variety of users accounts for about 15% of revenues.
- Professional services consist of contract programming and systems design of financial and accounting applications, primarily for the parent company.
- Turnkey systems provide similar financial and accounting applications to credit unions and medical practitioners as are available through CDI's processing services.
 - About 12 turnkey systems were installed at the end of fiscal 1977 and an additional eight are expected to be installed by the end of 1978. Management expects turnkey systems to represent a growing share of CDI's revenues.
 - DEC 11/70 and DEC PDP-8 CPUs are purchased on an OEM basis and enhanced with financial applications software prior to resale.
- Occasionally CDI markets a software product called CDI Letter writer for direct mail applications; however, this contributes a negligible amount of revenues.

APPLICATIONS Industry specialized applications account for 85% of processing services revenues as shown below:

Industry specialty	85%
Utility (raw time sales)	<u>15</u>
	100%

COMPANY HIGHLIGHT/COMPUTER DYNAMICS, INC.

INDUSTRY MARKETS Finance and banking is the principal industry served by CDI, as shown by the following distribution of revenues expected for 1978:

Banking and finance	81%
Commercial banks (including 60% of total revenues which are captive)	75%
Credit unions	6
Medical, comprised of such practitioners as physicians, dentists, optometrists	6
Manufacturing and miscellaneous industries, where raw time sales are made to several industries	<u>13</u>
	100%

GEOGRAPHIC MARKETS CDI's revenues are generated entirely within the state of California, part of the Pacific states region.

COMPUTER HARDWARE AND SOFTWARE

- CDI uses the following equipment to provide computer services:
 - An IBM System/360 Model 65, which runs under OS/MVT, is used to provide all processing services.
 - IBM 2780 and IBM 3780 terminals are used to provide remote batch processing capability.
- DEC PDP-11/70 and DEC PDP-8 CPUs provide the hardware for turnkey systems.



Dropped 1/81

COMPANY HIGHLIGHT

COMPUTER ELECTION SYSTEMS, INC.
1001 Eastshore Highway
Berkeley, CA 94710
(415) 527-5150

David L. Dunbar, President
Wholly-owned subsidiary of Hale
Brothers, Associates
Total employees: 150
Total revenues for fiscal year end
3/31/78: \$10,000,000*

THE COMPANY

- Computer Election Systems, Inc. (CES) was incorporated in California in 1969 and acquired by Hale Brothers Associates in 1977. It began and remains principally a manufacturer of voting equipment.
 - CES was formed by four people who left IBM at about the time IBM management decided to divest of the firm's Votomatic equipment.
 - Patents to the equipment were acquired by CES from the inventor, Dr. Joseph Harris, Professor Emeritus of UCB.
- Employees are grouped by principal function as follows:

- Marketing department	45
- Software and hardware development	20
- General and administrative (includes 10 management persons)	30
- Manufacturing (Texas and Berkeley facilities combined)	55
- Approximately 80% of CES revenues are generated by the manufacture and sale of computer hardware and peripheral equipment for tabulating election results. CES buys many components; assembles and builds interfaces for them. Its Texas manufacturing plant makes the two-stub ballot card, called Portapunch. Principal hardware products include:
 - Votomatic, CES's oldest products.
 - Ballot Tab, a desk top vote counter.
 - Alpha Ballot Tab, an extension of Ballot Tab, which provides alphabetic characters as well as numerals in tabulating results (e.g., candidate names).
 - Ballot Multiplexer System, a card-to-tape system used by large voter jurisdictions to speed the tabulating process.
 - CES precinct ballot counter, microprocessor-based device used to count votes in the precinct.
 - Jury Management System JMS-1, a turnkey system which combines hardware and computer services.
 - Voter Registration Systems.

* INPUT estimate

September 1978

COMPANY HIGHLIGHT/COMPUTER ELECTION SYSTEMS, INC.

- The 20% of revenues from computer services are generated by software products, turnkey systems, and professional services. The balance of this report focuses upon CES's services business.

KEY PRODUCTS AND SERVICES

- Computer services to approximately 575 city and county governments and membership organizations generate about 20% of CES total revenues. The services offered, listed in order of revenue importance in fiscal 1978 are:
 - Software products
 - Turnkey systems
 - Professional services
- CES markets two principal software products, EL70 and EL80. They have a combined total of about 100 installations.
 - EL70 performs ballot counting on IBM equipment.
 - EL80 performs ballot counting on non-IBM equipment.
 - Available under nondisclosure licensing.
 - Users have the option of maintaining the software themselves or having CES do it. Maintenance principally consists of modifying the software before each election to reflect current candidates and issues to be voted upon.
- Turnkey systems, a recent addition to the CES product line, are, according to management, the fastest growing segment of the firm. CES OEM-purchases the following hardware for use in turnkey election systems:
 - Hewlett-Packard 1000 CPUs are used for voter registration.
 - Data General Eclipse and CS/40 CPUs are used in both voter registration and the Jury Management System.
 - Data General and Keronix equipment are used in Ballot Tab and Ballot Multiplexer Systems.
 - Microprocessors are used as components in the CES Precinct Ballot Counter.
 - A total of 12 turnkey systems have been installed. Two Jury Management System JMS-Is have been installed to date.
- Professional services offered are comprised mostly of consulting services.

APPLICATIONS Specialty applications are provided for vote counting and related election applications.

COMPANY HIGHLIGHT/COMPUTER ELECTION SYSTEMS, INC.

INDUSTRY MARKETS City and country jurisdictions, part of the state and local government sector, generate 95% of CES computer services revenues. Membership organizations, such as unions, account for 5%.

GEOGRAPHIC MARKETS

- States where CES users service over 50% of the registered voter market are shown below in regional groups:
 - East North Central: Illinois, Indiana, Michigan, and Ohio.
 - Pacific: California, Oregon, and Washington.
 - South Atlantic: Florida, and North Carolina.
 - East South Central: Tennessee.
 - West North Central: Missouri.
 - Mountain: Arizona.
- CES systems are certified in 37 states; users are located in 34 of these.

COMPUTER HARDWARE AND SOFTWARE

- CES's four in-house computers are used for product testing and development only.
 - One Hewlett-Packard 1000.
 - One Data General Eclipse.
 - Two DG CS40 systems.
- Minicomputers and microprocessors are purchased from the following manufacturers for use in turnkey systems: Hewlett-Packard, Data General, and Keronix.



Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

June 1996

Computer Horizons Corp.

Chairman

& President: John J. Cassese
49 Old Bloomfield Avenue
Mountain Lakes, NJ 07046
Phone: (201) 402-7400
Fax: (201) 402-7988

Status:	Public
Employees:	2,511 (12/95)
Revenue:	\$200,050,000
Fiscal Year End:	12/31/95

Key Points

- Computer Horizons Corp. is a provider of integrated information systems solutions and services to a range of industries.
- Computer Horizons has expanded its traditional professional services businesses to provide integrated solutions to its customers through the following major initiatives:
 - Establishing a new subsidiary (Horizons Consulting, Inc.) to focus on large-scale project management/outsourcing services

- Acquiring Unified Systems Solutions, Inc., a provider of network management and integration services for client/server computing environments
- Creating a proprietary systems re-engineering methodology called "Systems Refurbishment™"
- Creating its Signature 2000™ solution for the millennium change, an end-to-end full-solution encompassing process, methodology, and its own proprietary toolkit
- Computer Horizons has also established a new software development and services joint venture—Birla Horizons International Limited—in New Delhi, India.

- During 1995, Computer Horizons added outsourcing facilities in New Jersey, Alabama, and India. Computer Horizons also remains committed to its core business—the contract programming market.
- A public offering of common stock in June 1995 generated proceeds of approximately \$13.3 million.

Company Description

Computer Horizons Corp., incorporated in New York in 1969, provides a range of professional and integration services to Fortune 500 firms nationwide in the manufacturing, financial services, telecommunications/transport/utilities, and wholesale/retail trade industries and to a growing number of international clients.

- Offerings include outsourcing, application development, reengineering, client/server migration, legacy services, network management, and training and education (knowledge transfer).
- In 1995, the company provided information technology services to 462 clients.

In June 1995, Computer Horizons completed a public offering of 1.14 million shares of its common stock. Net proceeds of approximately \$13.3 million were used to repay debt and provide working capital.

Organization and Structure

Computer Horizons currently has the following divisions/subsidiaries:

- ComputerKnowledge is the company's training and education division.
- Horizons Consulting, Inc. specializes in large-scale systems development,

maintenance, Year 2000, and conversion/migration projects.

- Unified Systems Solutions, Inc. provides systems and network integration services and a range of enterprise management solutions.
- Strategic Outsourcing Services, Inc. provides operations, data center, and facilities management outsourcing.
- Birla Horizons International Limited provides software development, legacy maintenance, and associated support services. It supports clients based on three continents.

Computer Horizons' operations are organized into three regions as follows:

- The Central States Region has offices in Atlanta (GA); Cincinnati, Cleveland, Columbus and Dayton (OH); Dallas and Houston (TX); Indianapolis (IN); Louisville (KY); and Memphis (TN).
- The Midwest/West Region has offices in Cedar Rapids (IA); Chicago (IL); Colorado Springs and Denver (CO); Detroit (MI), Kansas City/St. Louis (MO); Los Angeles and San Francisco (CA); Minneapolis (MN); Phoenix (AZ); and Toronto (Canada).
- The Eastern Region has offices in Boston (MA); Hartford (CT); Mountain Lakes (NJ); New York (NY); Philadelphia (PA); and Pompano Beach (FL).

Computer Horizons also has a Communications Division with offices in Clark (NJ), Dallas (TX), Washington, D.C., and Jacksonville, Orlando, and Tampa (FL) to handle the company's telecommunications business.

Company Strategy

Computer Horizons' current strategic plan includes the following goals:

- A sharper focus on clients, especially clients with national and international presence
- A continued focus on providing total solutions outsourcing
- Globalization of its solution and Year 2000 millennium offerings
- Continued investment in expanding its proprietary software and toolkit
- A greater orientation toward vertical (industry) marketing
- A sustained dedication to the training and education of Computer Horizons' professionals in technology, project management and customer satisfaction

Computer Horizons is committed to leveraging its primary business of resource provisioning (professional services) toward the project management business solutions market, including shared and complete ownership of outsourced systems integration projects.

Financials

Computer Horizons' 1995 revenue reached nearly \$200.1 million, a 31% increase over 1994 revenue of \$152.2 million. Net income was \$9.9 million, compared to \$5.7 million in 1994.

- Revenue growth in 1995 was attributed to increased solutions business and applicable improved pricing.
- A five-year financial summary follows:

Computer Horizons Corporation Five-Year Financial Summary (\$ Millions, except per-share data)

Item	Fiscal Year				
	1995	1994	1993	1992	1991
Revenue	\$200.1	\$152.2	\$121.6	\$102.2	\$94.5
• Percent change from previous year	31%	25%	19%	8%	(5%)
Income before taxes	\$17.6	\$10.4	\$6.9	\$3.9	\$4.1
• Percent change from previous year	69%	51%	77%	(5%)	(30%)
Net income	\$9.9	\$5.7	\$3.7	\$2.0	\$2.3
• Percent change from previous year	74%	54%	85%	(11%)	(32%)
Earnings per share (a)	\$0.63	\$0.40	\$0.24	\$0.15	\$0.17
• Percent change from previous year	58%	67%	70%	(12%)	(32%)

(a) Restated to reflect a 3-for-2 stock split in December 1995.

Interim Results

Revenue for the three months ending March 30, 1996 reached \$57.0 million, a 30% increase over \$43.9 million for the corresponding period in 1995. Net income rose 96%, from \$1.7 million to \$3.3 million.

Market Financials

Computer Horizons has changed its method of reporting revenue by industry sector to conform to SIC Code data.

- Financial services is the company's largest market sector, representing 29% of total revenue in 1995. Revenues increased 43% during the year.
- The Telecommunications/Utilities sector represented 25% of total revenue in 1995. Telecommunications, representing AT&T and other line carriers, grew over the three year period. Utilities remained essentially unchanged.
- Manufacturing represented 24% of total revenue in 1995. Revenues were broad based within this sector, with particular emphasis on transportation, petroleum refining, and chemical/allied products manufacturing.
- The Services sector, including Business Services, Training, and the Unified Systems Solutions client/server subsidiary represented 12% of 1995 revenue.
- The Wholesale/Retail Trade sector increased revenue 69% during 1995 and contributed 10% to total revenue.

- A three-year summary of source of revenue by industry sector is shown on the following page.

Revenue Analysis by Product/Service

INPUT estimates that approximately 70% of Computer Horizons' 1995 revenue was derived from professional services and 30% from systems integration and systems operations activities.

Geographic Markets

Virtually 100% of Computer Horizons' revenue was derived from the U.S.

Acquisitions

In June 1994, Computer Horizons acquired Strategic Outsourcing Services, Inc. (SOS) of Totowa (NJ). SOS provides outsourcing services to large enterprises, with an emphasis on "computer room" operations and network support. SOS operates as a division of Computer Horizons.

In January 1993, Computer Horizons acquired Unified Systems Solutions, a New Jersey-based firm, for approximately \$750,000.

- Unified provides systems and network integration services for open systems.
- Unified now operates as a wholly owned subsidiary of Computer Horizons.

Computer Horizons Corporation
Three-Year Source of Revenue Summary
(\$ Millions)

Industry Market	Fiscal Year					
	1995		1994		1993	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Financial Services (a)	\$57.0	29%	\$39.9	26%	\$31.5	26%
Telecom/Utilities (b)	51.3	25%	35.0	23%	28.8	24%
Manufacturing (c) (d)	48.8	24%	42.9	28%	34.1	28%
Services (e)	23.0	12%	22.5	15%	16.3	13%
Wholesale/Retail Trade	20.0	10%	11.9	8%	10.9	9%
Total	\$200.1	100%	\$152.2	100%	\$121.6	100%

(a) Includes insurance, brokerage, banking and nondepository credit institutions.

(b) Includes revenue from AT&T of approximately \$16 million in 1995, \$13.7 million in 1994, and \$15.8 million in 1993.

(c) Includes primarily transportation, petroleum refining, and chemical/allied products.

(d) Includes revenue from IBM of approximately \$10.1 million in 1995, \$9.1 million in 1994, and \$9.7 million in 1993.

(e) Includes primarily business services and computer processing services.

Employees

As of December 31, 1995, Computer Horizons had 2,511 employees, up from 2,150 employees at the end of 1994.

Employees are segmented as follows:

Computer professionals.....	2,206
Sales and technical	
client support.....	103
Recruiters	59
General and administrative	140
Executives.....	3
	2,511

Key Products and Services

Computer Horizons provides services in the areas of professional services staff, solutions for the millennium change, client/server systems development and migration, enterprise network management, outsourcing, offshore software development and maintenance, and knowledge transfer.

Professional Services Staffing

Computer Horizons' primary business is providing software professionals to augment the internal information management staffs of major corporations.

Solution for the Millennium Change

Signature 2000 combines an internally developed proprietary software toolkit, skilled resources, proven methodologies, project management, and millennium project experience.

- Signature 2000 analyzes, locates, reports on, and restructures all programs and database definitions affected by the absence of a century data field to permit processing of dates after December 31, 1999.
- The solution is customized for each client and deals with all collateral issues.

Client/Server Systems Development and Migration

Computer Horizons develops and implements open computer systems using client/server architecture and integrating servers, mini and mainframe systems, workstations, terminals, and communication gateways into complete, flexible networks.

- Services include project management, selection of viable systems platforms, creation of migration plans, development of customized software applications, and systems and database integration.
- Solutions may involve relational databases, graphical user interfaces, document management, advanced networks, and object-oriented technology.

Computer Horizons also specializes in integrating local-area network (LAN) environments into single heterogeneous networks and unifying enterprise networks into wide-area network (WAN) environments.

Enterprise Network Management

The focus of these services is the development and integration of centralized management platforms for mission-critical distributed systems environments.

Computer Horizons' staff handles large-scale integration projects, including those requiring vendor product integration and custom software development associated with LAN/WAN monitoring and control, network asset management, software distribution, and help desk support.

Outsourcing

Computer Horizons' outsourcing services include application development, systems maintenance, data network management, voice network administration, and help desk operations.

The company's outsourcing client portfolio, served by Horizons Consulting, Inc., includes banking, financial services, pharmaceutical, insurance, and utility companies.

Offshore Software Development and Maintenance

Through Birla Horizons International, a joint venture established in India, Computer Horizons provides offshore development, legacy systems maintenance, and conversion services that can be ported to client computers. Quality control and project management remain localized through one of Computer Horizons' domestic offices.

These services provide a low-cost alternative to having these services provided domestically for corporations under the constraints of downsizing and cost cutting.

Knowledge Transfer

ComputerKnowledge, Computer Horizons' training and education division, provides training in such subject areas as languages, hardware, software, tools, methodologies, management, and productivity skills. The company's offerings include application downsizing, graphical interfaces, open systems, CASE and information engineering technologies, relational technology, and personal computer software and hardware.

- Training is available in standard and customized courses, on or off site.
- Instructor-led classroom courses, video/audio tapes, and computer-based training modules are available.
- ComputerKnowledge can also assist clients in outsourcing their in-house training departments.
- The company has reseller and training rights in selected markets to certain development tools from KnowledgeWare for building client/server applications.

Marketing and Sales

Computer Horizons markets its services and solutions through its network of offices and subsidiary organizations.

Clients

As of December 31, 1995, Computer Horizons had served approximately 462 clients, up from 455 clients as of December 31, 1994.

AT&T was Computer Horizons' largest client in 1995. Other clients include Abbott Laboratories, Aetna, Allstate Insurance, ALLTEL, Amdahl, American Airlines, American Express, American Red Cross, Ameritech, Amoco, Anheuser-Busch, Bank

of America, Bank of New York, Baxter Healthcare, Bell Atlantic, BellSouth, Blue Cross/Blue Shield, Ford Motor Company, Goldman Sachs, Franklin Mint, GE Capital Mortgage, General Electric, General Mills, Houston Lighting & Power, Humana, IBM, Johns Hopkins, MCI, Merrill Lynch, Motorola, Prudential Insurance, Santa Fe Railroad, Reebok International, Shell Oil, Sherwin Williams, Sony, Sprint, Tennessee Valley Authority, Texaco, 3M, Time Inc., Toyota, United Parcel Service of America, University of Hartford, UNISYS, USA, Walt Disney, Warner-Lambert, and Weirton Steel.

Alliances/Joint Ventures

In 1994, Computer Horizons formed a joint venture for software development and services in New Delhi, India. The venture, called Birla Horizons International Limited, is headquartered in New Delhi, and has offices in London (England), Sunnyvale (CA), and Iselin (NJ).

Computer Horizons has an agreement with Software AG, Federal Systems to jointly market and provide solutions to solve Year 2000 computing problems.

Computer Horizons also has various alliances with other vendors, including Ernst & Young and IBM.

Competitors

Major competitors include professional services units of computer equipment manufacturers such as Hewlett-Packard, Unisys, and Digital Equipment Corporation.

Competitors also include Andersen Consulting, Technology Solutions Corporation, Cambridge Technology Partners, SHL Systemhouse, CAP GEMINI AMERICA, BSG Alliance/IT, Computer

Sciences Corporation, Computer Task Group, Keane, and Analysts International.

INPUT Assessment

Computer Horizons is successfully making a transition from being a contract

programming shop to a provider of a range of outsourcing services.

A key challenge for the company is competing with larger, more established companies in this price-sensitive market.

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

June 1995

Computer Horizons Corporation

Chairman

& President: John J. Cassese
49 Old Bloomfield Avenue
Mountain Lakes, NJ 07046
Phone: (201) 402-7400
Fax: (201) 402-7988

Status:	Public
Employees:	2,150
Revenue:	\$ 152,192,000
Fiscal Year End:	12/31/94

Key Points

- Computer Horizons Corp. is a provider of integrated information systems solutions and services to a range of industries.
- Computer Horizons has expanded its traditional professional services businesses to providing integrated solutions to its customers through three major initiatives announced in 1992:
 - Establishing a new subsidiary (Horizons Consulting, Inc.) to focus on large-scale project management services

- Acquiring Unified Systems Solutions Inc., a provider of network management and integration services for client/server computing environments
- Creating a proprietary systems re-engineering methodology called "Systems Refurbishment™"
- Computer Horizons has also established a new software development and services joint venture—Birla Horizons International Limited—in New Delhi, India.
- In June 1994, Computer Horizons acquired Strategic Outsourcing Services, Inc., expanding the company's outsourcing offerings in the area of computer and network operations.

- Computer Horizons also remains committed to its core business—the contract programming market. During 1992, the company strengthened its customer and geographic base in this area with the acquisition of Wayne (NJ)-based Worldwide Computer Services, Inc.

Company Description

Computer Horizons Corporation, incorporated in New York in 1969, provides a range of professional and integration services to Fortune 500 firms nationwide in the manufacturing, financial services, telecommunications/ transport/utilities and wholesale/retail trade industries. Offerings include outsourcing, reengineering, client/server migration, network management and training and education (knowledge transfer).

Organization and Structure

Computer Horizons currently has the following divisions/subsidiaries:

- ComputerKnowledge is the company's training and education division.
- Horizons Consulting Inc. specializes in large-scale systems development and conversion/migration projects.
- Unified Systems Solutions, Inc. provides systems and network integration services.
- Strategic Outsourcing Services, Inc. provides outsourcing services to large enterprises.
- Birla Horizons International Limited provides software development and associated support services.

Computer Horizons' operations are organized into three regions as follows:

- The Central States Region has offices in Cincinnati, Cleveland, Columbus and Dayton (OH), Indianapolis (IN), Louisville (KY), Raleigh (NC), Atlanta (GA), Memphis (TN) and Houston (TX).
- The Midwest/West Region has offices in Detroit (MI), Phoenix (AZ), Los Angeles (CA), Denver (CO), Chicago (IL), Kansas City (KS) and Minneapolis (MN).
- The Eastern Region has offices in Hartford (CT), Washington D.C., Miami (FL), Boston (MA), Mountain Lakes (NJ), New York (NY) and Philadelphia (PA).

Computer Horizons also has a Communications Division with offices in Clark (NJ) and Tampa (FL) to handle the company's telecommunications business.

Company Strategy

Computer Horizons' current strategic plan includes the following goals:

- A sharper focus on clients, especially clients with national and international presence
- A repositioning of its business into strategic lines of business that will more readily address its target markets
- Continued investment in CASE technology
- A greater orientation toward vertical (industry) marketing
- A sustained dedication to the training and education of Computer Horizons' professionals in technology, project management and customer satisfaction

Computer Horizons is committed to leveraging its primary business of resource provisioning (professional services) toward the project management business solutions market, including shared and complete ownership of outsourced systems integration projects.

Financials

Computer Horizon's 1994 revenue reached nearly \$152.2 million, a 25% increase over 1993 revenue of \$121.6 million. Net income

was \$5.7 million, compared to \$3.7 million in 1993.

- The expansion of the company's core business of providing professional software staff contributed significantly to the revenue growth in 1994.
- Development of the project and solutions business was also responsible for the increase in revenue.
- A five-year financial summary follows:

Computer Horizons Corporation

Five-Year Financial Summary

(\$ Millions, except per share data)

Item	Fiscal Year				
	1994	1993	1992	1991	1990
Revenue	\$152.2	\$121.6	\$102.2	\$94.5	\$99.4
• Percent change from previous year	25%	19%	8%	(5%)	17%
Income before taxes	\$10.4	\$6.9	\$3.9	\$4.1	\$5.9
• Percent change from previous year	51%	77%	(5%)	(30%)	435%
Net income	\$5.7	\$3.7	\$2.0	\$2.3	\$3.3
• Percent change from previous year	54%	85%	(11%)	(32%)	*
Earnings per share (a)	\$0.90	\$0.56	\$0.33	\$0.39	\$0.57
• Percent change from previous year	61%	70%	(15%)	(32%)	*

* Percent change exceeds 1,000%.

(a) Restated to reflect 3-for-2 stock splits in March 1993 and February 1994.

Interim Results

Revenue for the three months ending March 30, 1995, reached \$43.9 million, a 32% increase over \$33.2 million for the corresponding period in 1994. Net income rose 51%, from \$1.1 million to nearly \$1.7 million.

Market Financials

Computer Horizons has changed its method of reporting revenue by industry sector to conform to SIC Code data.

- Manufacturing is the company's largest market sector, representing 28% of total revenue in 1994. Revenues are broad-based, with particular emphasis in petroleum

refining, transportation and chemical/allied products manufacturing.

- Financial Services generated 26% of the company's revenues in 1994. A doubling of revenue between 1991 and 1994 was experienced across sub-sectors, including insurance, brokerage, banking and non-depository credit institutions.
- The Telecommunications/Utilities sector represented 23% of total revenue in 1994. Telecommunications, representing AT&T and other line carriers, grew over the three year period. Utilities remained essentially unchanged.

• The Wholesale/Retail Trade sector contributed 8% of 1994 revenue. A large retail project caused a significant increase in revenue for this sector.

- The Services sector, including Business Services, Training and the Unified Systems Solutions client/server subsidiary represented 15% of 1994 revenue. The 1994 improvement resulted from increased business services revenues and increases in client/server services.
- A three-year summary of source of revenue by industry sector follows:

Computer Horizons Corporation
Three-Year Source of Revenue Summary
(**\$ Millions**)

Industry Market	Fiscal Year					
	1994		1993		1992	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Manufacturing (a) (b)	\$42.9	28%	\$34.1	28%	\$24.6	24%
Financial Services (c)	39.9	26%	31.5	26%	23.1	22%
Telecom/Transport/Utilities (d)	35.0	23%	28.8	24%	26.4	26%
Wholesale/Retail Trade	11.9	8%	10.9	9%	14.9	15%
Services (e)	22.5	15%	16.3	13%	13.2	13%
Total	\$152.2	100%	\$121.6	100%	\$102.2	100%

(a) Includes primarily petroleum refining, transportation and chemical/allied products.

(b) Includes revenue from IBM of approximately \$9.1 million in 1994, \$9.7 million in 1993 and \$15.3 million in 1992.

(c) Includes insurance, brokerage, banking and non-depository credit institutions.

(d) Includes revenue from AT&T of approximately \$13.7 million in 1994, \$15.8 million in 1993 and \$11.2 million in 1992.

(e) Includes business services, education and training and client/server services.

Revenue Analysis by Product/Service

INPUT estimates approximately 80% of Computer Horizon's 1994 revenue was derived from professional services and the remainder from systems integration and systems operations activities.

Geographic Markets

One hundred percent of Computer Horizon's revenue is derived from the U.S.

Acquisitions

In June 1994, Computer Horizons acquired Strategic Outsourcing Services, Inc. (SOS) of Totowa (NJ). SOS provides outsourcing services to large enterprises, with an emphasis on "computer room" operations and network support. SOS will operate as a division of Computer Horizons.

In January 1993, Computer Horizons acquired Unified Systems Solutions, a New Jersey-based firm, for approximately \$750,000.

- Unified provides systems and network integration services for open systems.
- Unified now operates as a wholly owned subsidiary of Computer Horizons.

On August 31, 1993, Computer Horizons repurchased 597,000 shares of its common stock held by Compangie Generale d'Informatique.

Employees

As of December 31, 1994, Computer Horizons had 2,150 employees, up from 1,603 employees at the end of 1993.

Employees are segmented as follows:

Computer professionals	1,879
Sales and technical	
client support	126
Recruiters.....	49
General and administrative	92
Executives	4
	2,150

Key Products and Services

Computer Horizons provides services in the areas of outsourcing, re-engineering, client/server migration, network management, Systems Refurbishment and knowledge transfer.

Outsourcing

Computer Horizon's outsourcing services include application development, maintenance, network management and data center operations.

The company's outsourcing client portfolio, served by Horizons Consulting Inc., includes banking, financial services, pharmaceutical, insurance and utility companies.

Reengineering

Computer Horizons deals with clients who, due to changing economic environments, are looking to redesign their critical business processes.

- Computer Horizons' reengineering practice focuses on assisting companies with the "shift in thinking" required to redesign those corporate structures.

- The reengineered business process is then documented using CASE tools. Models built in the reengineering phase are used as a foundation for new development and/or system re-engineering products.
- Computer Horizons' approach to reengineering incorporates forming a joint project team with the client, consisting of technology and industry specialists.

Client/Server Migration

Through Unified Systems Solutions Inc., Computer Horizons provides solutions for migrating legacy computing environments to client/server environments.

- Solutions generally involve relational databases, graphical user interfaces, document management, advanced networks and object-oriented technology.
- Major services provided include rightsizing systems, application migrations, new application development, technology evaluations, turnkey systems development and document management systems.

Network Management

Through Unified Systems Solutions Inc., Computer Horizons provides customized integrated network and systems management services based on the "best of class" products for network and systems management, trouble ticketing, asset and inventory management, physical layer management, legacy systems integration and reporting.

Computer Horizons provides full lifecycle services, including requirements definition, migration planning, system design, development, testing, documentation and training.

Systems Refurbishment

Systems Refurbishment, a practice area of Horizons Consulting Inc. has two key objectives:

- To extend the life of legacy systems by restructuring and improving the quality of the legacy code
- To extract business knowledge from legacy systems in order to support re-engineering and/or redevelopment projects.

Computer Horizons uses a variety of code improvement tools and proprietary software and techniques to restructure legacy codes. Along with refurbished code, the company produces a full set of documentation and procedures for conducting future maintenance activities.

Horizons Consulting's business rules extraction software enables translation of rules from COBOL programs into structured English. These rules can then be printed for review and documentation purposes or stored in repository for forward engineering to a new environment.

Knowledge Transfer

ComputerKnowledge, Computer Horizon's training and education division, provides training in such subject areas as languages, hardware, software, tools, methodologies, management and productivity skills. The company's offerings include application downsizing, graphical interfaces, open systems, CASE and information engineering technologies, relational technology and personal computer software and hardware.

- Training is available in standard and customized courses, on- or off-site.

- Instructor-led classroom courses, video/audio tapes, and computer-based training modules are available.
- ComputerKnowledge can also assist clients in outsourcing their in-house training departments.
- The company also has reseller and training rights in selected markets to certain development tools from KnowledgeWare for building client/server applications.

Marketing and Sales

Computer Horizons markets its services and solutions through a network of 33 offices and subsidiary organizations.

Clients

As of December 31, 1994, Computer Horizon had served approximately 455 clients. AT&T and IBM are the company's largest clients, contributing approximately 9% and 6% respectively to Computer Horizon's revenue. Other clients include Transamerica, America Express, United Parcel Service and KMart.

Alliances/Joint Ventures

In 1994, Computer Horizons formed a joint venture for software development and services in New Delhi, India. The venture, called Birla Horizons International Limited will be headquartered in New Delhi, and will have operations in the U.S. and the U.K.

Computer Horizons has an agreement with Bell Atlantic Systems Integration Corp. to work together to market systems integration services, focusing on large-scale systems integration projects requiring CASE, re-engineering, client/server and network integration technologies.

Computer Horizons also has various alliances with other vendors, including Ernst & Young and IBM.

Competitors

Major competitors include Computer Sciences Corporation, Computer Task Group, Keane, Analysts International and CAP GEMINI.

Other significant competitors include, Technology Solutions Corporation, Cambridge Technology Partners, Inc., SHL Systemhouse, Inc., and BSG Corporation, as well as the "Big 6".

The company also competes with professional services groups of companies such as Hewlett-Packard, Unisys and DEC.

INPUT Assessment

Computer Horizons is successfully transitioning the company from a contract programming shop to a provider of a range of outsourcing services.

A key challenge for the company is competing with larger, more established companies in this price-sensitive market.



Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

August 1994

Computer Horizons Corporation

Chairman
& President: John J. Cassese
49 Old Bloomfield Avenue
Mountain Lakes, NJ 07046
Phone: (201) 402-7400
Fax: (201) 402-7988

Status:	Public
Employees:	1,603
Revenue:	\$ 121,550,000
Fiscal Year End:	12/31/93

Key Points

- Computer Horizons has expanded its traditional professional services businesses to providing integrated solutions to its customers through three major initiatives announced in 1992:
 - Establishing a new subsidiary (Horizons Consulting, Inc.) to focus on large-scale project management services
 - Acquiring Unified Systems Solutions Inc., a provider of network management and
- Creating a proprietary systems re-engineering methodology called "Systems Refurbishment™"
- In June 1994, Computer Horizons acquired Strategic Outsourcing Services, Inc., expanding the company's outsourcing offerings in the area of computer and network operations.
- Computer Horizons also remains committed to its core business—the contract programming market. During 1992, the company strengthened its customer and geographic base in this area with the acquisition of Wayne (NJ)-based Worldwide Computer Services, Inc.

integration services for client/server computing environments

- In 1993, Computer Horizons joined KnowledgeWare as a Client/Server Alliance Partner, providing Computer Horizons with reseller and training rights in selected markets for KnowledgeWare's distributed development tools—Object View and Flashpoint.
- The company's stock doubled during 1993 and in early 1994, Computer Horizons announced its second 3-for-2 stock split in twelve months.

Company Description

Computer Horizons Corporation, incorporated in New York in 1969, provides a range of professional and integration services to Fortune 500 firms nationwide in the manufacturing, financial services, telecommunications/transport/utilities and wholesale/retail trade industries. Offerings include outsourcing, re-engineering, client/server migration, network management and training and education (knowledge transfer).

Organization and Structure

Computer Horizons currently has the following divisions/subsidiaries:

- ComputerKnowledge is the company's training and education division.
- Horizons Consulting Inc. specializes in large-scale systems development and conversion/migration projects.
- Unified Systems Solutions, Inc. provides systems and network integration services.

Computer Horizons' operations are organized into five regions as follows:

- The North/East Region has offices in Mountain Lakes (NJ), Hartford (CT), Boston (MA),

Miami (FL), Philadelphia (PA) and Washington, D.C.

- The New York Region has an office in New York City.
- The Central State Region has offices in Cincinnati, Cleveland, Columbus and Dayton (OH); Indianapolis (IN); Louisville (KY); Raleigh (NC); and Pittsburgh (PA).
- The Midwest Region has offices in Detroit (MI), Chicago (IL), Kansas City (KS), Minneapolis (MN) and Houston (TX).
- The Western Region has offices in Phoenix (AZ), Los Angeles (CA) and Denver (CO).

Computer Horizons also has a Communications Region with offices in Clark (NJ), Orlando (FL) and Tampa (FL) to handle the company's telecommunications business.

Company Strategy

Computer Horizons' current strategic plan includes the following goals:

- A sharper focus on clients, especially clients with national and international presence
- A repositioning of its business into strategic lines of business that will more readily address its target markets
- Continued investment in CASE technology
- A greater orientation toward vertical (industry) marketing
- A sustained dedication to the training and education of Computer Horizons' professionals in technology, project management, and customer satisfaction

Computer Horizons is committed to leveraging its primary business of resource provisioning (professional services) toward the project management business solutions market, including shared and complete ownership of outsourced systems integration projects.

Financials

Computer Horizon's 1993 revenue reached nearly \$121.6 million, a 19% increase over 1992

revenue of \$102.2 million. Net income was \$3.7 million, compared to \$2.0 million in 1992.

- The acquisition of Worldwide Computer Services in 1992 contributed to revenue growth in both 1993 and 1992. Revenue growth, exclusive of Worldwide, was 11% in 1993 and 3% in 1992.
- A five-year financial summary follows:

Computer Horizons Corporation Five-Year Financial Summary (\$ Millions, except per share data)

Item	Fiscal Year				
	1993	1992	1991	1990	1989
Revenue	\$121.6	\$102.2	\$94.5	\$99.4	\$84.7
• Percent change from previous year	19%	8%	(5%)	17%	7%
Income (loss) before taxes	\$6.9	\$3.9	\$4.1	\$5.9	\$(1.8)
• Percent change from previous year	77%	(5%)	(30%)	435%	(144%)
Net income (loss)	\$3.7	\$2.0	\$2.3	\$3.3	\$(0.2)
• Percent change from previous year	85%	(11%)	(32%)	*	(112%)
Earnings (loss) per share (a)	\$0.54	\$0.33	\$0.39	\$0.57	\$(0.05)
• Percent change from previous year	64%	(15%)	(32%)	*	N/A

* Percent change exceeds 1,000%.

(a) Restated to reflect 3-for-2 stock splits in March 1993 and February 1994.

Interim Results—Revenue for the six months ending June 28, 1994 reached \$69.4 million, a 17% increase over \$59.2 million for the same period in 1993. Net income rose 39%, from \$1.8 million to nearly \$2.6 million.

Market Financials

Computer Horizons has changed its method of reporting revenue by industry sector to conform to SIC Code data.

• Manufacturing is the company's largest market sector, representing 27% of total revenue in 1993. Revenues are broad-based, with particular emphasis in petroleum refining, transportation and chemical/allied products manufacturing.

• Financial Services generated 25% of the company's revenues in 1993. A doubling of revenue between 1991 and 1993 was experienced across sub-sectors, including

insurance, brokerage, banking and non-depository credit institutions.

- The Telecommunications/Transport/Utilities sector represented 21% of total revenue in 1993. Telecommunications, representing AT&T and other line carriers, grew over the three year period. Utilities remained essentially unchanged, while Transport fell, the result of a substantial courier company project being canceled.
- The Wholesale/Retail Trade sector contributed 9% of 1993 revenue. A large retail project caused the 1992 increase.
- The Services sector, including Business Services, Training and the Unified Systems Solutions client/server subsidiary represented 18% of 1993 revenue. The 1993 improvement resulted from increased business services revenues and increases in client/server services.
- A three-year summary of source of revenue by industry sector follows:

**Computer Horizons Corporation
Three-Year Source of Revenue Summary
(\$ Millions)**

Industry Market	Fiscal Year					
	1993		1992		1991	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Manufacturing (a) (b)	\$32.3	27%	\$24.0	23%	\$29.1	31%
Financial Services (c)	30.0	25%	22.5	22%	14.7	16%
Telecom/Transport/Utilities (d)	26.0	21%	25.8	25%	28.8	30%
Wholesale/Retail Trade	10.5	9%	14.5	14%	9.0	10%
Services (e)	22.8	18%	15.4	16%	12.9	13%
Total	\$121.6	100%	\$102.2	100%	\$94.5	100%

(a) Includes primarily petroleum refining, transportation and chemical/allied products.

(b) Includes revenue from IBM of approximately \$9.7 million in 1993, \$15.3 million in 1992 and \$19.4 million in 1991.

(c) Includes insurance, brokerage, banking and non-depository credit institutions.

(d) Includes revenue from AT&T of approximately \$15.8 million in 1993, \$11.2 million in 1992 and \$9.9 million in 1991.

(e) Includes business services, education and training and client/server services.

Revenue Analysis by Product/Service

INPUT estimates approximately 80% of Computer Horizon's 1993 revenue was derived from professional services and the remainder from systems integration and systems operations activities.

Geographic Markets

One hundred percent of Computer Horizon's revenue is derived from the U.S.

Acquisitions

In June 1994, Computer Horizons acquired Strategic Outsourcing Services, Inc. (SOS) of Totowa (NJ). SOS provides outsourcing services to large enterprises, with an emphasis on "computer room" operations and network support. SOS will operate as a division of Computer Horizons.

In January 1993, Computer Horizons acquired Unified Systems Solutions, a New Jersey-based firm, for approximately \$750,000.

- Unified provides systems and network integration services for open systems.
- Unified now operates as a wholly owned subsidiary of Computer Horizons.

In August 1992, Computer Horizons acquired Worldwide Computer Services Inc. of Wayne (NJ) for approximately 330,000 shares of Computer Horizons common stock.

- Worldwide provides temporary and on-site computer, software and communications professionals to Fortune 500 companies nationwide.
- The operations of Worldwide have been consolidated into Computer Horizon's North/East Region.

On August 31, 1993, Computer Horizons repurchased 597,000 shares of its common stock held by Compangie Generale d'Informatique.

Employees

As of December 31, 1993, Computer Horizons had 1,603 employees, up from 1,414 employees at the end of 1992. Employees are segmented as follows:

Computer professionals	1,376
Sales and technical client support.....	106
Recruiters.....	41
General and administrative.....	76
Executives.....	4
	1,603

Key Products and Services

Computer Horizons provided its services to 458 clients during 1993, compared to 402 clients during 1992, 392 clients during 1991, 424 clients during 1990 and 388 clients during 1989.

Computer Horizons provides services in the areas of outsourcing, re-engineering, client/server migration, network management, Systems Refurbishment and knowledge transfer.

Outsourcing

Computer Horizon's outsourcing services include application development, maintenance, network management and data center operations.

The company's outsourcing client portfolio, served by Horizons Consulting Inc., includes banking, financial services, pharmaceutical, insurance and utility companies.

Re-engineering

Computer Horizons deals with clients who, due to changing economic environments, are looking to redesign their critical business processes.

- Computer Horizons' re-engineering practice focuses on assisting companies with the "shift in thinking" required to redesign those corporate structures.
- The re-engineered business process is then documented using CASE tools.
- Models built in the re-engineering phase are used as a foundation for new development and/or system re-engineering products.
- Computer Horizons' approach to re-engineering incorporates forming a joint project team with the client, consisting of technology and industry specialists.

Client/Server Migration

Through Unified Systems Solutions Inc., Computer Horizons provides solutions for migrating legacy computing environments to client/server environments.

- Solutions generally involve relational databases, graphical user interfaces, document management, advanced networks and object-oriented technology.
- Major services provided include rightsizing systems, application migrations, new application development, technology evaluations, turnkey systems development and document management systems.

Network Management

Through Unified Systems Solutions Inc., Computer Horizons provides customized integrated network and systems management services based on the "best of class" products for network and systems management, trouble ticketing, asset and inventory management, physical layer management, legacy systems integration and reporting.

Computer Horizons provides full lifecycle services, including requirements definition, migration planning, system design, development, testing, documentation and training.

Systems Refurbishment

Systems Refurbishment, a practice area of Horizons Consulting Inc. has two key objectives:

- To extend the life of legacy systems by restructuring and improving the quality of the legacy code
- To extract business knowledge from legacy systems in order to support re-engineering and/or redevelopment projects.

Computer Horizons uses a variety of code improvement tools and proprietary software and techniques to restructure legacy codes. Along with refurbished code, the company produces a full set of documentation and procedures for conducting future maintenance activities.

Horizons Consulting's business rules extraction software enables translation of rules from COBOL programs into structured English. These rules can then be printed for review and documentation purposes or stored

in repository for forward engineering to a new environment.

Knowledge Transfer

ComputerKnowledge, Computer Horizons' training and education division, provides training in such subject areas as languages, hardware, software, tools, methodologies, management and productivity skills. The company's offerings include application downsizing, graphical interfaces, open systems, CASE and information engineering technologies, relational technology and personal computer software and hardware.

- Training is available in standard and customized courses, on- or off-site.
- Instructor-led classroom courses, video/audio tapes, and computer-based training modules are available.
- ComputerKnowledge can also assist clients in outsourcing their in-house training departments.
- The company also has reseller and training rights in selected markets to certain development tools from KnowledgeWare for building client/server applications.

Marketing and Sales

Computer Horizons markets its services through a network of 30 offices and subsidiary organizations.

Clients

Clients have included AT&T, IBM, Transamerica, America Express, United Parcel Service and KMart.

Alliances

In 1993, Computer Horizons joined KnowledgeWare as a Client/Server Alliance Partner, providing Computer Horizons with reseller and training rights in selected markets for KnowledgeWare's distributed development tools—Object View and Flashpoint.

Computer Horizons has an agreement with Bell Atlantic Systems Integration Corp. to work together to market systems integration services, focusing on large-scale systems integration projects requiring CASE, re-engineering, client/server and network integration technologies.

Computer Horizons also has various alliances with other vendors, including Ernst & Young and IBM.

Competitors

Major competitors include Computer Task Group, Keane, Analysts International, CAP GEMINI, as well as some of the major accounting firms.

Computer Horizons also competes with smaller firms on a local level.

INPUT Assessment

Computer Horizons is successfully transitioning the company from a contract programming shop to a provider of a range of outsourcing services.

A key challenge for the company is competing with larger, more established companies in this price-sensitive market.

**COMPUTER HORIZONS
CORPORATION**

49 Old Bloomfield Avenue
Mountain Lakes, NJ 07046
Phone: (201) 402-7400
Fax: (201) 402-7988

Chairman and
President: John J. Cassese
Status: Public Corporation
Stock Exchange: NASDAQ
Total Employees: 1,414
Total Revenue: \$102,206,000
Fiscal Year End: 12/31/92

Key Points

- During 1992, Computer Horizons expanded its professional service offerings with three major initiatives:
- Establishing a new subsidiary (Horizons Consulting, Inc.) to focus on large-scale project management services
- Acquiring Unified Systems Solutions Inc., a provider of network management and integration services for client/server computing environments
- Creating a proprietary systems re-engineering methodology called "Systems Refurbishment"
- Computer Horizons also remains committed to its core business--the contract programming market. During 1992, the company strengthened its customer and geographic base in this area with the acquisition of Wayne (NJ)-based Worldwide Computer Services, Inc.

Company Description

Computer Horizons Corporation, incorporated in New York in 1969, provides a range of professional and integration services to Fortune 500 firms nationwide in the commercial/industrial, communications, and financial services industries. Offerings include management consulting, systems development, re-engineering, training and education, systems/network integration, conversion/migration, and production systems support.

Computer Horizons currently has the following divisions/subsidiaries:

- ComputerKnowledge is the company's training and education division.
- Horizons Consulting Inc. specializes in large-scale systems development and conversion/migration projects.
- Unified Systems Solutions, Inc. provides systems and network integration services.

Strategy

Computer Horizons' current strategic plan includes the following goals:

- A sharper focus on clients, especially clients with national and international presence
- A repositioning of its business into strategic lines of business that will more readily address its target markets
- Continued investment in CASE technology
- A greater orientation toward vertical (industry) marketing
- A sustained dedication to the training and education of Computer Horizons' professionals in technology, project management, and customer satisfaction

Computer Horizons is committed to leveraging its primary business of resource provisioning (professional services) towards the project management business solutions market, including shared and complete ownership of outsourced systems integration projects.

Financials

Computer Horizons' 1992 revenue reached \$102.2 million, an 8% increase over 1991 revenue of \$94.5 million. Net income was \$2.0 million, compared to \$2.3 million in 1991. A five-year financial summary follows:

**COMPUTER HORIZONS CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	1992	1991	1990	1989	1988
Revenue	\$102,206	\$94,543	\$99,432	\$84,650	\$79,150
· Percent increase (decrease) from previous year	8%	(5%)	17%	7%	12%
Income (loss) before taxes	\$3,892	\$4,084	\$5,868	\$(1,751)	\$4,009
· Percent Increase (decrease) from previous year	(5%)	(30%)	435%	(144%)	(9%)
· Gross margin	4%	4%	6%	--	5%
Net income (loss)	\$2,026	\$2,266	\$3,334	\$(291)	\$2,273
· Percent increase (decrease) from previous year	(11%)	(32%)	*	(112%)	--
· Net margin	2%	2%	3%	--	3%
Earnings (loss) per share (a)	\$0.50	\$0.58	\$0.86	\$(0.08)	\$0.33
· Percent increase (decrease) from previous year	(14%)	(33%)	*	(121%)	1%

* Percent change exceeds 1,000%.

(a) Restated to reflect a 3-for-2 stock split in March 1993.

Revenue increases during 1992 were due to year-over-year volume improvement and the acquisition of Worldwide Computer Services. Previously, 1991 revenue had declined by 5% as compared to 1991, primarily the result of an employment and cost reduction attitude prevalent among large companies during the recessionary economic climate which emerged in late 1990.

- The commercial/industrial market segment continues to be the company's largest, representing 69% (\$70.5 million) of 1992 revenue. The business is broad-based, with particular emphasis in utilities, transportation, energy, and health care.
- IBM business decreased to 15% (\$15.3 million) of total revenues in 1992, from 21% (\$19.4 million) in 1991. The principal reason stems from a technical change in the billing procedure.

- Financial services revenue returned to growth in 1992, particularly the insurance segment.
- Communications revenues, after declining for three years, improved to 16% of total revenue in 1992. This trend change was due to increased business with AT&T and contracts associated with the Worldwide Computer Services acquisition.

Declines in net income in 1992 were due to continued increased selling, general, and administrative costs associated with forming the Horizons Consulting subsidiary.

Revenue for the three months ending March 31, 1993 reached \$29.4 million, compared to \$24.3 million for the same period in 1992. Net income was \$858,000, compared to \$774,000 for the same period a year ago.

Market Financials

INPUT estimates approximately 75% to 80% of Computer Horizons' 1992 revenue was derived from professional services and the remainder from systems integration activities.

A three-year summary of source of revenue by industry follows:

**COMPUTER HORIZONS CORPORATION
THREE-YEAR SOURCE OF REVENUE SUMMARY
(\$ millions)**

MARKET	FISCAL YEAR					
	1992		1991		1990	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Commercial/industrial (a)	\$70.5	69%	\$68.0	72%	\$63.5	64%
Communications (b)	16.4	16%	14.2	15%	18.8	19%
Financial services	15.3	15%	12.3	13%	17.1	17%
TOTAL	\$102.2	100%	\$94.5	100%	\$99.4	100%

(a) Includes revenue from IBM of approximately \$15.3 million and \$19.4 million for 1992 and 1991, respectively.

(b) Includes revenue from AT&T of approximately \$11.2 million, \$9.9 million, and \$13.4 million for 1992, 1991, and 1990, respectively.

**Geographic Markets**

One hundred percent of Computer Horizons' 1992 revenue was derived from the U.S.

**Operations/
Structure**

Computer Horizons' operations are organized into six regions as follows:

- The Northeast Region has offices in Mountain Lakes (NJ), Hartford and Norwalk (CT), and Boston (MA).
- The New York Region has an office in New York City.
- The Atlantic Region has offices in Washington, D.C.; Miami, Orlando, and Tampa (FL); Atlanta (GA); Raleigh (NC); Clark and Princeton (NJ); and Philadelphia (PA).
- The Ohio Valley Region has offices in Cincinnati, Cleveland, Columbus, and Dayton (OH); Indianapolis (IN); Louisville (KY); and Pittsburgh (PA).
- The Great Lakes Region has offices in Detroit (MI), Chicago (IL), Minneapolis (MN), and Houston (TX).
- The Western Region has offices in Phoenix (AZ), Los Angeles (CA), and Denver (CO).

**Employees**

As of December 1992, Computer Horizons had 1,414 employees, segmented as follows:

Computer professionals	1,181
Sales and technical client support	112
Recruiters	44
General and administrative	73
Executives	4
	1,414

**Acquisitions**

In January 1993, Computer Horizons acquired Unified Systems Solutions, a New Jersey-based firm, for approximately \$750,000.

- Unified provides systems and network integration services for open systems.
- Unified now operates as a wholly owned subsidiary of Computer Horizons.

In August 1992, Computer Horizons acquired Worldwide Computer Services Inc. of Wayne (NJ) for approximately 330,000 shares of Computer Horizons common stock.

- Worldwide provides temporary and on-site computer, software, and communications professionals to Fortune 500 companies nationwide.
- The operations of Worldwide have been consolidated into Computer Horizon's Atlantic Region.

Key Products and Services

Computer Horizons provided its professional and services to 402 clients during 1992, compared to 392 clients during 1991, 424 clients during 1990, 388 clients during 1989, and 435 clients during 1988.

Computer Horizons' services include systems re-engineering (Systems Refurbishment), client/server solutions, network integration, conversion/migration, consulting, production systems support, and training.

In the area of re-engineering, Computer Horizons uses its Systems Refurbishment methodology to update clients' legacy systems. Systems Refurbishment improves a system's future maintainability, upgrades a system's technology through language conversions and environment migration, and extends a system's life expectancy. It also increases maintenance productivity and captures a system's components in repository.

Computer Horizons provides integrated solutions using client/server technology.

- Systems development specialists work closely with clients to design, develop, and implement customized applications solutions across all environments and hardware platforms.
- Solutions may involve relational data bases, graphical user interfaces, advanced networks, and object-oriented technologies.
- Major services provided include rightsizing, application migrations, new application development, technology evaluations, and turnkey systems development.

In the network integration area, Computer Horizons develops voice/data/fax communications networks and distributed and cooperative processing solutions to link and integrate potentially disparate hardware and software platforms at one or more locations. Services include systems integration; satellite, local, and wide-area

network design and implementation; mini, micro, and mainframe integration; network design and evaluation; site planning and feasibility studies; and network administration and operation.

In the area of conversion/migration, Computer Horizons converts applications, operating systems, communications environments, languages, and data base management systems. Computer Horizons also has alliances with various vendors to complement its internal expertise.

In the area of consulting, Computer Horizons provides clients with strategic assistance for business and/or technical planning, re-engineering issues, the development of systems architectures, organizational structure, and system plans.

In the area of production system support, Computer Horizons offers on-site and off-site operating, maintenance, and enhancement support.

ComputerKnowledge, Computer Horizon's training and education division, provides training in such subject areas as mainframe and open systems, advanced software tools, data modeling, management and productivity skills development, personal computer software and hardware proficiency, and relational technology.

- Training is available in standard and customized courses, on- or off-site.
- Instructor-led classroom courses, video/audio tapes, and computer-based training modules are available.
- ComputerKnowledge can also assist clients in outsourcing their in-house training departments.

Alliances

Computer Horizons has an agreement with Bell Atlantic Systems Integration Corp. to work together to market systems integration services, focusing on large-scale systems integration projects requiring CASE, re-engineering, client/server, and network integration technologies.

Computer Horizons also has various alliances with other vendors, including Ernst and Young and IBM.

Clients

Clients include IBM, Transamerica, American Express, United Parcel Service, and KMart.

Competitors

Major competitors include AGS Computers (NYNEX), Computer Task Group, Keane, Analysts International, CAP GEMINI, as well as some of the major accounting firms.

Computer Horizons also competes with smaller firms on a local level.

COMPANY PROFILE

COMPUTER HORIZONS CORPORATION

747 Third Avenue
New York, NY 10017
(212) 371-9600

John J. Cassese, Chairman and President
Public Corporation, NASDAQ
Total Employees: 1,258
Total Revenue, Fiscal Year End
12/31/90: \$99,432,000

The Company

Computer Horizons Corporation, incorporated in New York in 1969, provides custom software development, management consulting, and training and education professional services and systems integration services primarily to Fortune 500 firms in the commercial/industrial, communications, and financial services industries.

In October 1989, Computer Horizons announced a plan of restructuring to reduce costs and improve operating efficiency. During 1990, the restructuring was substantially completed.

Computer Horizons' current strategic plan, which will carry through the next five years, includes the following goals:

- A sharper focus on clients, especially clients with national and international presence
- A repositioning of its business into strategic lines of business that will more readily address its target markets
- Continued investment in CASE technology
- A greater orientation toward vertical (industry) marketing
- A sustained dedication to the training and education of Computer Horizons' professionals in technology, project management, and customer satisfaction

Computer Horizons is committed to leveraging its primary business of resource provisioning (professional services) towards the project management business solutions market, including shared and complete ownership of outsourced systems integration projects.

Computer Horizons' calendar 1990 revenue reached \$99.4 million, a 17% increase over calendar 1989 revenue of \$84.7 million. Net income was \$3.3 million, compared to net losses of \$291,000 for

1989 (which include restructuring charges of \$3.3 million). A four-year financial summary follows:

**COMPUTER HORIZONS CORPORATION
FOUR-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR			
	1990	1989	1988	1987
Revenue	\$99,432	\$84,650	\$79,150	\$70,606
Percent increase from previous year	17%	7%	12%	22%
Income (loss) before taxes	\$5,868	\$(1,751) (a)	\$4,009	\$4,401
Percent increase (decrease) from previous year	435%	(144%)	(9%)	(3%)
Gross margin	6%	--	5%	6%
Net income (loss)	\$3,334	\$(291) (b)	\$2,273 (c)	\$2,244
Percent increase (decrease) from previous year	*	(112%)	--	3%
Net margin	3%	--	3%	3%
Earnings (loss) per share	\$1.30	\$(0.12) (b)	\$0.49 (c)	\$0.84
Percent increase (decrease) from previous year	*	--	1%	(3%)

* Percent change exceeds 1,000%.

(a) Includes restructuring charges of \$3.3 million.

(b) Includes a gain of over \$1 million (\$0.43 per share) from the cumulative effective of a change in accounting for deferred income tax.

(c) Includes a charge of \$961,000 (\$0.36 per share) from the cumulative effect of a change in accounting principles associated with employee recruitment costs.

Revenue increases during 1990 were due primarily to the growth in the commercial/industrial market segment which continues to be the company's largest, representing 64% of 1990 revenue and 55% of 1989 revenue. This business is broad-based, with particular positive impact from Computer Horizons' strength in the Midwest, as well as its emphasis on systems integration partnering and project work.

- Financial services market segment revenue declined slightly during 1990 due primarily to continued weakness in the

brokerage/banking industry. Revenues had improved significantly during 1989 due to internal growth and acquisitions.

- Communications market segment revenues have declined as a percent of total revenue from 35% in 1987 to 19% in 1990. These reduced levels are attributed to lower levels of business with AT&T.

Net income improved substantially during 1990 due to a 17% increase in revenue, coupled with a 9% reduction in selling, administrative, and general expenses.

Revenue for the six months ending June 30, 1991 was \$47.1 million, compared to \$48.4 million for the same period in 1990. Net income was \$1.5 million, compared to \$1.45 million for the same period a year ago.

As of December 1990, Computer Horizons had 1,258 employees, segmented as follows:

Sales and technical client support	80
Consultants	1,061
Recruiters	40
General and administrative	72
	1,258

Major competitors include AGS Computers (NYNEX), Computer Task Group, Keane, and Analysts International.

Key Products and Services

INPUT estimates approximately 75% to 80% of Computer Horizons' 1990 revenue was derived from professional services and the remainder from systems integration activities.

Computer Horizons provided its services to 424 clients during 1990, compared to 388 clients during 1989, and 435 clients during 1988.

Computer Horizons' core services include systems analysis and design, programming, and implementation. These services are supplemented by consulting and education and training.

- The company's consulting skills have been used to perform such tasks as business planning and analysis, feasibility studies, project planning and management, data base audit, data communications and network planning, and design review and system assurance.
- Computer Horizons has designed major systems for, among other functions, cash management, insurance claim processing, demand

deposit accounting, and electronic switching. The company also makes recommendations with respect to the selection and efficient use of hardware and personnel to meet the client's objectives.

- Computer Horizons' programming and implementation services may range from coding, testing, and documentation of specific programs within a project, to total responsibility for a project, or management of a client's programmers. The company is also actively involved in data base management and communications and networking.
- The company also has expertise in enterprise architecture planning, high-level relational consulting, data interpretation systems, and imaging.
- Computer Horizons designs custom courses and seminars for clients' internal staffs, addressing subjects such as techniques of analysis, design, programming, and implementation; documentation; management techniques and supervisory skills; an introduction to data processing and various computer languages; and advanced training on a continuing education basis. Services are provided to clients in both microcomputer and mainframe environments.
- ComputerKnowledge, acquired by Computer Horizons in 1987, is a software training and education services firm based in Dallas.

Computer Horizons also provides systems integration services and has alliances with various vendors, including Ernst and Young, IBM, and Hoskyns Group.

Industry Markets

A three-year summary of source of revenue follows:

COMPUTER HORIZONS CORPORATION
THREE-YEAR SOURCE OF REVENUE SUMMARY
($\$$ millions)

MARKET	FISCAL YEAR					
	1990		1989		1988	
	REVENUE $\$$	PERCENT OF TOTAL	REVENUE $\$$	PERCENT OF TOTAL	REVENUE $\$$	PERCENT OF TOTAL
Commercial/industrial	\$63.5	64%	\$46.6	55%	\$40.3	51%
Communications (a)	18.8	19%	20.4	24%	26.6	34%
Financial services	17.1	17%	17.7	21%	12.3	15%
TOTAL	\$99.4	100%	\$84.7	100%	\$79.2	100%

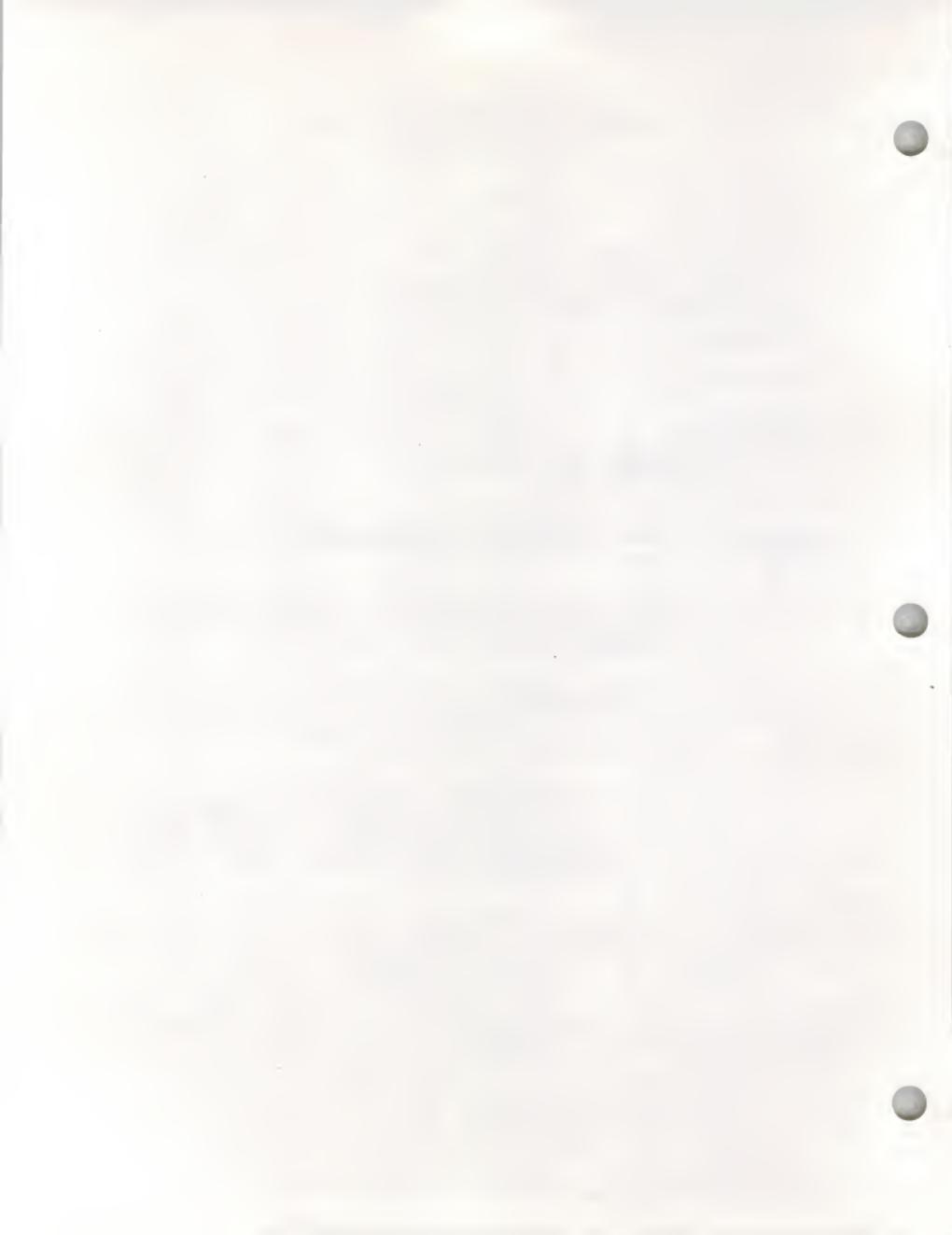
(a) Includes revenue of approximately \$12.9 million, \$14.9 million, and \$19.6 million from AT&T for 1990, 1989, and 1988, respectively.

Geographic Markets

One hundred percent of Computer Horizons' 1990 revenue was derived from the U.S.

During 1990, Computer Horizons reorganized its operations into six regional offices with their respective district offices located in 18 additional cities around the country.

- Regional offices are located in Atlanta (Southern region), New York (Northeast region), Mountain Lakes, NJ (Mid-Atlantic region), Phoenix (Western region), Detroit (Great Lakes region), and Cincinnati (Ohio Valley region).
- District offices are located in Boston, Chicago, Cleveland, Columbus, Dallas, Denver, Hartford, Houston, Los Angeles, Louisville, Miami, Minneapolis, Norwalk, Philadelphia, Pittsburgh, San Francisco, Tampa/Orlando, and Washington, D.C.



COMPANY PROFILE

**COMPUTER HORIZONS
CORPORATION**
747 Third Avenue
New York, NY 10017
(212) 371-9600

John J. Casse, Chairman and President
Public Corporation, OTC
Total Employees: 1,287
Total Revenue, Fiscal Year End
12/31/89: \$84,650,000

The Company

Computer Horizons Corporation, incorporated in New York in 1969, provides custom software development, management consulting, and training and education professional services and systems integration services primarily to Fortune 500 firms in the commercial/industrial, communications, and financial services industries. Computer Horizons also offers several systems software products for DB2 users.

Effective February 1988, Computer Horizons changed its fiscal year-end from February 28 to December 31, bringing the company's fiscal year in line with other computer professional services firms.

During early 1989, Computer Horizons reorganized its operations into three divisions as follows:

- The Professional Services Division provides Computer Horizons' systems development, contract programming, and education and training business.
- The Relational Strategies Division markets various DB2 systems software products and application software for trust accounting.
- The Systems Integration Division teams with other information services firms to provide integration support services.

In October 1989, Computer Horizons announced a plan of restructuring to reduce costs and improve operating efficiency.

- Actions taken included the closing and consolidation of certain offices, work force reductions, the write-off of certain impaired assets, and the recasting of some compensation plans.
- The company anticipates that the restructuring will be completed during 1990.

Computer Horizon's calendar 1989 revenue reached \$84.7 million, a 7% increase over calendar 1988 revenue of \$79.2 million. Net losses for 1989 include restructuring charges of \$3.3 million. A five-year financial summary follows:

**COMPUTER HORIZONS CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	12/89	12/88	12/87	2/87	2/86
Revenue	\$84,650	\$79,150	\$70,606	\$58,034	\$50,303
• Percent increase from previous year	7%	12%	22%	15%	14%
Income (loss) before taxes	<u>\$(1,751)</u> (a)	\$4,009	\$4,401	\$4,523	\$4,550
• Percent increase (decrease) from previous year	(144%)	(9%)	(3%)	(1%)	11%
• Gross margin	--	5%	6%	8%	9%
Net income (loss)	<u>\$(291)</u> (b)	\$2,273 (c)	\$2,244	\$2,186	\$2,211
• Percent increase (decrease) from previous year	(112%)	--	3%	(1%)	10%
• Net margin	--	3%	3%	4%	4%
Earnings per share	<u>\$(0.12)</u> (b)	\$0.85 (c)	\$0.84	\$0.83	\$0.86
• Percent increase (decrease) from previous year	--	1%	(3%)	10%	(14%)

- (a) Includes restructuring charges of \$3.3 million.
- (b) Includes a gain of over \$1 million (\$0.43 per share) from the cumulative effective of a change in accounting for deferred income tax.
- (c) Includes a charge of \$961,000 (\$0.36 per share) from the cumulative effect of a change in accounting principles associated with employee recruitment costs.

1989 results were significantly impacted by a 23% reduction in revenue from the communications sector business. Revenue from AT&T declined by 24%, and other communications companies' business was reduced by 21%.

- The commercial/industrial market segment continues to be the company's largest, representing 55% of 1989 revenue. This market has experienced a compounded annual growth rate of 43% since 1983.

- Financial Services' 1989 revenue improved significantly during 1989 due to internal growth and acquisitions.
- The net loss in 1989 was attributed to \$3.3 million of restructuring costs and increased direct selling, administrative, and general costs.

Revenue for the three months ending March 31, 1990 reached \$24.1 million, a 22% increase over \$19.7 million for the same period in 1989. Net income from operations rose 73%, from \$858,000 to \$1.5 million. Results were attributed to the restructuring program implemented in October 1989 as well as greater penetration in most of the markets that Computer Horizons serves.

Acquisitions made by Computer Horizons include the following:

- In May 1989, Computer Horizons acquired the Professional Computer Consulting Services Division of Kearns & Melloy Associates, Inc.
 - The division, with approximately 50 employees, provides software development and consulting professional services to the brokerage industry and other financial services firms.
- In October 1988, Computer Horizons acquired CompTech of Hartford (CT).
 - CompTech, with approximately 35 employees at the time of the acquisition, is a professional services firm specializing in relational data base management.
 - The operations of CompTech have been merged into Computer Horizons.
- In June 1988, Computer Horizons completed the acquisition of Technical Resources Group Inc. (TRG) of Plymouth Meeting (PA).
 - TRG, with approximately 25 employees at the time of the acquisition, is a software development and consulting professional services firm. Its work has been primarily performed in IBM and DEC environments and in markets consisting of major chemical, financial services, and pharmaceutical companies.

- The operations of TRG have been merged into Computer Horizons and have expanded the company's services in the mid-Atlantic region.

As of December 1989, Computer Horizons had 1,287 employees, segmented as follows:

Sales and technical client support	93
Consultants	1,075
Recruiters	36
General and administrative	70
Executives	<u>13</u>
	1,287

The company currently has 1,310 employees.

Major competitors include AGS Computers (NYNEX), Computer Task Group, Keane, and Analysts International.

Key Products and Services

Approximately 90% of Computer Horizons' 1989 revenue was derived from its various professional services and 10% from systems integration activities. During 1989, Computer Horizons provided its services to 388 clients. A further breakdown of 1989 revenue follows:

Professional services	
- Software development	67%
- Network development	9%
- Consulting	9%
- Education and training	<u>5%</u>
	90%
Systems integration	<u>10%</u>
	100%

Computer Horizons' core services include systems analysis, design, programming, and implementation. These services are supplemented by consulting and education and training.

- The company's consulting skills have been used to perform such tasks as business planning and management, data base audit, data communications and network planning, and design review and system assurance. Computer Horizons also makes recommendations with respect to the selection and use of data processing equipment and personnel to meet the client's objectives.

- Computer Horizons has designed major systems for, among other functions, cash management, insurance claim processing, demand deposit accounting, and electronic switching.
- Computer Horizons' programming and implementation services may range from coding, testing, and documentation of specific programs within a project, to total responsibility for a project, or management of a client's programmers. The company is also actively involved in data base management and communications and networking.
- Computer Horizons designs custom courses and seminars for clients' internal staffs, addressing subjects such as techniques of analysis, design, programming, and implementation; documentation; management techniques and supervisory skills; an introduction to data processing and various computer languages; as well as advanced training on a continuing education basis. Services are provided to clients in both microcomputer and mainframe environments.

- ComputerKnowledge, acquired by Computer Horizons in 1987, is a software training and education services firm based in Dallas.

Computer Horizons has recently been awarded new contracts with Exxon, Dun & Bradstreet, and General Electric.

- Computer Horizons participated in the production of an image and document distribution system for intracompany information handling for AT&T. The system uses network technology to transfer data between various computers and image processing nodes. The UNIX- and C-based system is configured with Sun, DEC/VAX, and AT&T hardware.
- Computer Horizons assumed total project responsibility for the development of an integrated processing environment for National Cleaning Contractors (NCC), one of the largest commercial building maintenance firms in the U.S.
 - An IBM AS/400 is replacing a System/38 to link NCC human resource systems, budgets, billing, building profiles, escalation variances, and system security.
 - Tasks being performed by Computer Horizons at NCC regional centers include requirements definition, functional analysis, detail program specifications, programming, implementation, documentation, user manuals, and user training.

- Computer Horizons assumed total responsibility for the evaluation and selection of a broadband LAN to connect over 500 microcomputers and several processors for a major Ford Motors assembly plant.
- Computer Horizons supervised the hardware implementation, support of all peripheral devices, user training, and network performance testing.
- The system, with video capability and Ethernet via LAN bridges, runs on IBM PCNET with ASCII gateways to DEC, Burroughs, and Prime processors.
- In support of Chrysler's Service Bay Systems Project, Computer Horizons developed a 10,000-line C program (which runs under Microsoft Windows and displays text and icon outlines) that assists car repair technicians by producing visual flow charts of the specific job to be done.
- In support of TIME's plans to build several critical DB2-based systems, Computer Horizons managed the conceptual and logical data modeling and development of an enterprise data model. The systems were implemented on an IBM 3090 under MVS/EAS.
 - Computer Horizons provided training to TIME staff and provided a team to effect the physical implementation of DB2 data bases and performance tuning of DB2.

Computer Horizons also provides systems integration services and has alliances with various vendors, including Ernst and Young, IBM, and Hoskyns Group.

- Together with Ernst and Young, Computer Horizons bid and won a \$9 million project with the New York City Board of Education for design and implementation of an employee benefits system.
- Computer Horizons is IBM's strategic partner with Transamerica Corporation on several projects.

Computer Horizons' Relational Strategies Division was created to help clients use strategic data planning as part of a corporate planning process. Products/services available include the following:

- Enterprise architecture planning
- High-level relational consulting
- Data interpretation systems
- Imaging
- Systems integration

Industry Markets

Computer Horizons' business mix has changed significantly since 1986. A three-year summary of source of revenue follows:

**COMPUTER HORIZONS CORPORATION
THREE-YEAR SOURCE OF REVENUE SUMMARY
(\$ millions)**

MARKET	FISCAL YEAR					
	12/89		12/88		12/87	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Commercial/Industrial	\$46.6	55%	\$40.3	51%	\$31.1	44%
Communications (a)	20.4	24%	26.6	34%	24.4	35%
Financial services	17.7	21%	12.3	15%	15.1	21%
TOTAL	\$84.7	100%	\$79.2	100%	\$70.6	100%

(a) *Includes revenue of approximately \$14.9 million, \$19.6 million, and \$17.7 million from AT&T for calendar 1989, 1988, and 1987, respectively.*

Geographic Markets

One hundred percent of Computer Horizons' 1989 revenue was derived from the U.S.

During 1989, Computer Horizons reorganized its operations into eight regions, none with more than four offices. Seven offices or satellites have been closed; some others are being reviewed for consolidation.

- Regional offices are located in Atlanta, Cincinnati, Detroit, Miami, Mountain Lakes, Phoenix, Pittsburgh, and New York.
- District offices are located in Arlington, Boston, Chicago, Cleveland, Columbus, Dallas, Denver, Hartford, Houston, Los Angeles, Louisville, Minneapolis, Orlando, Philadelphia, Raleigh, San Francisco, and Tampa.



COMPANY PROFILE

COMPUTER HORIZONS CORPORATION

747 Third Avenue
New York, NY 10017
(212) 371-9600

John J. Cassese, Chairman and President
Public Corporation, OTC
Total Employees: 1,185
Total Revenue, Fiscal Year End
12/31/88: \$79,150,000

The Company

Computer Horizons Corporation, incorporated in New York in 1969, provides professional and systems integration services primarily to Fortune 500 firms in the industrial/manufacturing, communications, and financial services industries. Computer Horizons also offers several systems software products for DB2 users and a trust processing and accounting product.

During early 1989, Computer Horizons reorganized its operations into three divisions as follows:

- The Professional Services Division provides Computer Horizons' systems development, contract programming, and education and training business.
- The Relational Strategies Division markets various DB2 systems software products and application software for trust accounting.
- The Systems Integration Division teams with other information services firms to provide integration support services.

Effective February 1988, Computer Horizons changed its fiscal year end from February 28 to December 31, bringing the company's fiscal year in line with other computer professional services firms.

Computer Horizons' calendar 1988 revenue reached \$79.1 million, a 12% increase over calendar 1987 revenue of \$70.6 million. Income before the cumulative effect of a change in accounting for employee recruitment costs reached nearly \$2.3 million or \$0.85 per share. A five-year financial summary follows:

COMPUTER HORIZONS CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	12/88	12/87	2/87	2/86	2/85
Revenue (a) • Percent increase from previous year	\$79,150 12%	\$70,606 22%	\$58,034 15%	\$50,303 14%	\$44,096 29%
Income before taxes • Percent increase (decrease) from previous year	\$4,009 (9%)	\$4,401 (3%)	\$4,523 (1%)	\$4,550 11%	\$4,108 (9%)
Net Income • Percent increase (decrease) from previous year	\$2,273 (b) —	\$2,244 3%	\$2,186 (1%)	\$2,211 10%	\$2,019 (10%)
Earnings per share • Percent increase (decrease) from previous year	\$0.85 (b) —	\$0.84 1%	\$0.83 (3%)	\$0.86 10%	\$0.78 (14%)

- (a) Certain results prior to calendar 1987 have been reclassified to conform with current presentations.
- (b) Before a charge of \$961,000 (\$0.36 per share) from the cumulative effect of a change in accounting principals associated with employee recruitment costs.

Operating results for 1988 were less than anticipated, primarily because of the premature termination of two sizable consulting projects early in the third quarter.

Revenue for the six months ending June 30, 1989 reached nearly \$40.5 million, a 4% increase over \$38.9 million for the same period in 1988. Net income totaled \$513,000, compared to \$1.4 million for the same period a year ago.

- Computer Horizons experienced reduced revenue from the communications sector, though financial services and industrial revenues grew.
- Although revenue from the Midwest region grew, revenue from the Mid-Atlantic and Southern regions experienced weakness.

Acquisitions made by Computer Horizons include the following:

- In May 1989, Computer Horizons acquired the Professional

Computer Consulting Services Division of Kearns & Melloy
Associates, Inc.

- The division, with approximately 50 employees, provides software development and consulting professional services to the brokerage industry and other financial services firms.
- In October 1988, Computer Horizons acquired CompTech of Hartford (CT).
 - CompTech, with approximately 35 employees at the time of the acquisition, is a professional services firm specializing in relational data base management.
 - The operations of CompTech have been merged into Computer Horizons.
- In June 1988, Computer Horizons completed the acquisition of Technical Resources Group Inc. (TRG) of Plymouth Meeting (PA).
 - TRG, with approximately 25 employees at the time of the acquisition, is a software development and consulting professional services firm. Its work has been primarily performed in IBM and DEC environments and in markets consisting of major chemical, financial services, and pharmaceutical companies.
 - The operations of TRG have been merged into Computer Horizons and have expanded the company's services in its Mid-Atlantic Region.

As of December 1988, Computer Horizons had 1,185 employees, segmented as follows:

Sales and technical client support	87
Consultants	982
Recruiters	37
General and administrative	66
Executives	13
	1,185

The company currently has 1,250 employees.

Major competitors include AGS Computers (NYNEX), Computer Task Group, Keane, and Analysts International.

Key Products and Services

Approximately 90% of Computer Horizons' 1988 revenue was derived from its various professional services and 10% from systems integration activities. During 1988, Computer Horizons provided its services to 435 clients.

A further breakdown of 1988 revenue follows:

Professional services	
- Software development	67%
- Network development	9%
- Consulting	9%
- Education and training	<u>5%</u>
	90%
Systems integration	10%
	100%

Computer Horizon's core services include systems analysis, design, programming, and implementation. These services are supplemented by consulting and education and training.

- The company's consulting skills have been used to perform such tasks as business planning and management, data base audit, data communications and network planning, and design review and system assurance. Computer Horizons also makes recommendations with respect to the selection and use of data processing equipment and personnel to meet the client's objectives.
- Computer Horizons has designed major systems for, among other functions, cash management, insurance claim processing, demand deposit accounting, and electronic switching.
- Computer Horizons' programming and implementation services may range from coding, testing, and documentation of specific programs within a project, to total responsibility for a project, or management of a client's programmers. The company is also actively involved in data base management and communications and networking.
- Computer Horizons designs custom courses and seminars for clients' internal staffs, addressing subjects such as techniques of analysis, design, programming, and implementation; documentation; management techniques and supervisory skills; an introduction to data processing and various computer languages; as well as advanced training on a continuing education basis. Services are provided to clients in both microcomputer and mainframe environments.

- Computer Knowledge, acquired by Computer Horizons in 1987, is a software training and education services firm based in Dallas.

Projects performed by Computer Horizons include the following:

- Computer Horizons participated in the production of an image and document distribution system for intracompany information handling for AT&T. The system uses network technology to transfer data between various computers and image processing nodes. The UNIX- and C-based system is configured with Sun, DEC/VAX, and AT&T hardware.
- Computer Horizons assumed total project responsibility for the development of an integrated processing environment for National Cleaning Contractors (NCC), one of the largest commercial building maintenance firms in the U.S.
 - An IBM AS/400 is replacing a System/38 to link NCC human resource systems, budgets, billing, building profiles, escalation variances, and system security.
 - Tasks being performed by Computer Horizons at NCC regional centers include requirements definition, functional analysis, detail program specifications, programming, implementation, documentation, user manuals, and user training.
- Computer Horizons assumed total responsibility for the evaluation and selection of a Broadband LAN to connect over 500 microcomputers and several processors for a major Ford Motors assembly plant.
 - Computer Horizons supervised the hardware implementation, support of all peripheral devices, user training, and network performance testing.
 - The system, with video capability and Ethernet via LAN bridges, runs on IBM PCNET with ASCII gateways to DEC, Burroughs, and Prime processors.
- In support of Chrysler's Service Bay Systems Project, Computer Horizons developed a 10,000-line C program (which runs under Microsoft Windows and displays text and icon outlines) that assists service car repair technicians by producing visual flow charts of the specific job to be done.
- In support of TIME's plans to build several critical DB2-based

systems, Computer Horizons managed the conceptual and logical data modeling and development of an enterprise data model. The systems were implemented on an IBM 3090 under MVS/EAS.

- Computer Horizons provided training to TIME staff and provided a team to effect the physical implementation of DB2 data bases and performance tuning of DB2.

Computer Horizons also provides systems integration services and has alliances with various vendors, including Ernst and Young, IBM, and Hoskyns Group.

Computer Horizons' Relational Strategies Division was created to help clients use strategic data planning as part of a corporate planning process. Products/services available include the following:

- Enterprise architecture planning
- High-level relational consulting
- Data interpretation systems
- Imaging
- Systems integration

Industry Markets

Computer Horizons' business mix has changed significantly since 1986. A three-year summary of source of revenue follows:

**COMPUTER HORIZONS CORPORATION
THREE-YEAR SOURCE OF REVENUE SUMMARY
(\\$ millions)**

MARKET	FISCAL YEAR					
	12/88		12/87		2/87	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Industrial/manufacturing	\$40.3	51%	\$31.1	44%	\$22.8	39%
Communications	26.6	34%	24.4	35%	19.0	33%
Financial services	12.3	15%	15.1	21%	16.2	28%
TOTAL	\$79.2	100%	\$70.6	100%	\$58.0	100%

- The improved performance of the industrial/manufacturing market segment has been particularly impacted by the

company's strength in the Midwest.

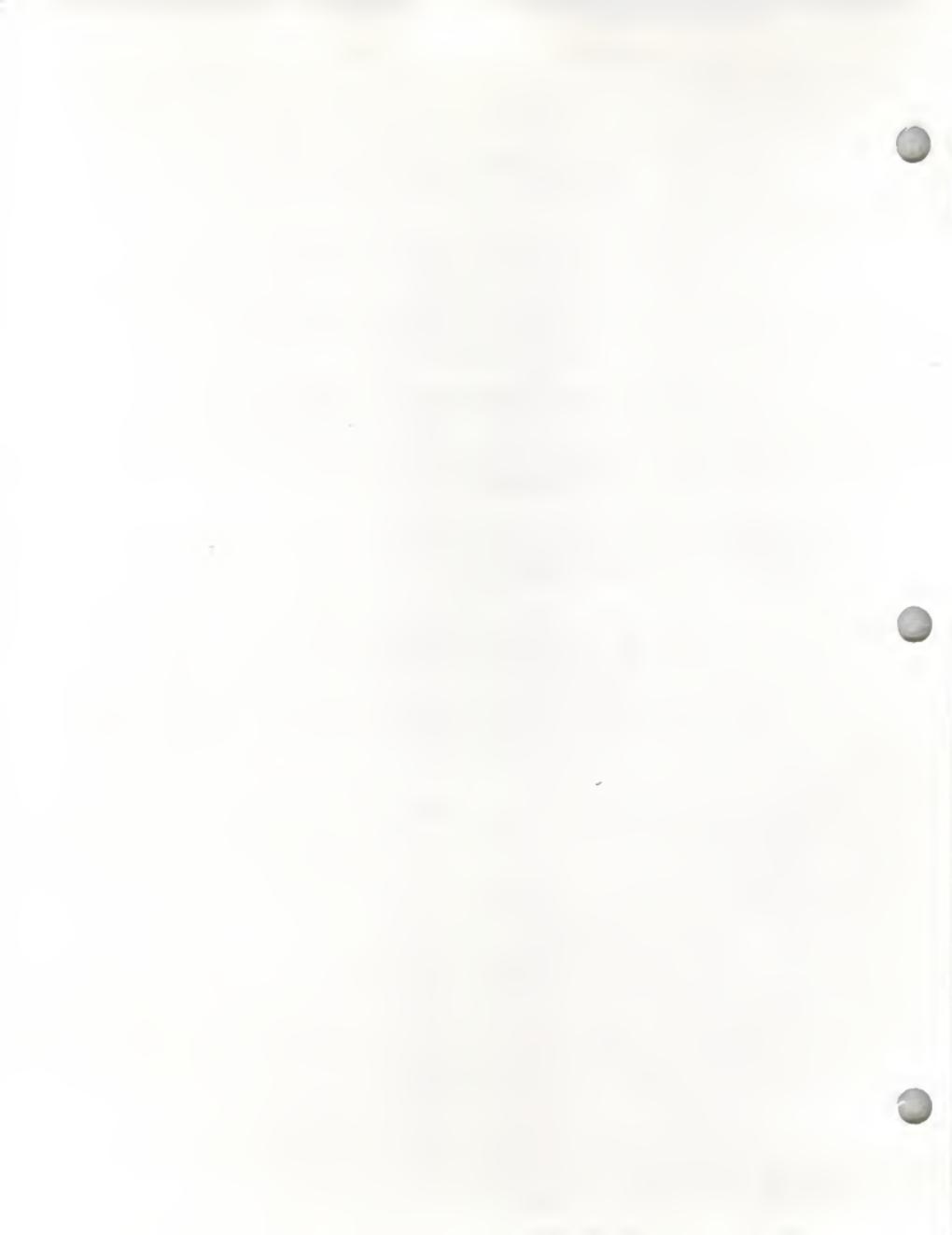
- The communications market segment includes approximately \$19.6 million, \$17.7 million, and \$13.2 million from AT&T for calendar 1988, 1987, and fiscal 1987, respectively.
- Revenues from AT&T, which contributed approximately 25% to Computer Horizons' total 1988 revenue, are generated through approximately 75 different contracts and engagements in 16 different locations, with 12 different AT&T divisions and subdivisions. AT&T will only contribute an estimate 15% to 1989 revenue.
- Financial services revenues have declined due to the difficulties experienced by the brokerage/banking industry in the aftermath of the late 1987 crash. It is anticipated that Computer Horizons will see a material improvement in that market during 1989.

Geographic Markets

One hundred percent of Computer Horizons' 1988 revenue was derived from the U.S.

Computer Horizons has a total of 31 offices in the following cities: Albany and New York (NY); Arlington (VA); Atlanta (GA); Boston (MA); Charlotte and Raleigh (NC); Chicago (IL); Cincinnati, Cleveland, and Columbus (OH); Dallas and Houston (TX); Detroit (MI); Denver (CO); Hartford and Norwalk (CT); Los Angeles and San Francisco (CA); Louisville (KY); Miami, Orlando, and Tampa (FL); Minneapolis (MN); Parsippany (NJ); Philadelphia (PA); and Phoenix (AZ).

Software instruction/training centers are located in Dallas and Chicago.



COMPANY PROFILE

COMPUTER HORIZONS CORPORATION
747 Third Avenue
New York, NY 10017
(212) 371-9600

John J. Cassease, Chairman and
President
Public Corporation, OTC
Total Employees: 1,002
Total Revenue, Fiscal Year End
2/28/87: \$58,476,000

THE COMPANY

- Computer Horizons Corporation (CHC), incorporated in New York in 1969, is a custom software development professional services company providing system analysis, design, and programming services to large companies, primarily in industrial/manufacturing, communications, and financial services industries.
- Fiscal 1987 revenue reached \$58.5 million, a 15% increase over fiscal 1986 revenue of \$50.9 million. Net income in fiscal 1987 fell 1% to \$2.18 million from \$2.2 million in fiscal 1986. A five-year financial summary follows:

COMPUTER HORIZON CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR	2/87	2/86	2/85	2/84	2/83
Revenue		\$ 58,476	\$ 50,892	\$ 44,411	\$ 34,380	\$ 20,349
• Percent increase from previous year		15%	15%	29%	69%	41%
Income before taxes		\$ 4,523	\$ 4,550	\$ 4,108	\$ 4,510	\$ 1,520
• Percent increase (decrease) from previous year		(1%)	11%	(9%)	197%	83%
Net income (a)		\$ 2,186	\$ 2,211	\$ 2,019	\$ 2,250	\$ 766
• Percent increase (decrease) from previous year		(1%)	10%	(10%)	194%	81%
Earnings per share		\$ 0.83	\$ 0.86	\$ 0.78	\$ 0.91	\$ 0.35
• Percent increase (decrease) from previous year		(3%)	10%	(14%)	160%	94%

(a) Restated to reflect cumulative effect of a change in accounting principles.

COMPUTER HORIZONS CORPORATION

- CHC attributes its 15% increase in revenue to rapid growth in two of its industry markets—industrial/manufacturing and financial services—mitigated by a 12.8% decline in its third major industry market—communications.
- CHC attributes its decline in profit margin (from 8.9% in fiscal 1986 to 7.7% in fiscal 1987) to administrative expenses of opening new offices and to wage increases for the consulting staff that were not entirely offset by price increases. The company places particular emphasis on price competition as a factor contributing to declining profit margins.
- Recent acquisitions made by CHC include the following:
 - In December 1985 CHC acquired Marco Computer Services, Inc., a data processing professional services firm based in Minneapolis.
 - On December 11, 1986, CHC announced the acquisition of a start-up professional services venture with annual revenue around \$3 million. CHC did not release the name of the acquired venture.
 - On December 31, 1986 CHC purchased the data processing consulting business of InfoGroup, Inc., a Detroit-based private company, for \$5.2 million plus contingent payments based on future performance.
 - On March 4, 1987 CHC purchased ComputerKnowledge, a Dallas-based software training and education services company for \$650,000 in cash.
- As of February 28, 1987 there were 1,002 employees segmented as follows:

Administration and sales	199
Professional services consultants	<u>803</u>
	1,002

- CHC considers its top competitors to be AGS Computers, CGA Computer Associates, Computer Task Group, Data Architects, Software Design Associates, and the Big Eight Accounting Firms.

KEY PRODUCTS AND SERVICES

- One-hundred percent of CHC's revenue is derived from professional services, primarily in the development of customized software and systems integration. A further breakdown of the company's business follows:

Software development	46%
Consulting	3
Education and training	5
Systems integration	<u>46</u>
	100%

- Much of the company's business involves the development of major mainframe applications, with particular emphasis on data base technologies.
- CHC provides feasibility and business analysis, system analysis and design, implementation (program design, coding, testing and documentation) and training and education.
 - These applications design and development projects typically last from six months to three years and involve from 2 to 25 CHC specialists. Services are generally provided on-site and are charged on a time basis in agreements that are terminable by either party on short notice.
 - Projects have included designing systems for cash management, insurance claims processing, demand deposit accounting, and electronic switching. CHC also recommends equipment and personnel and provides total project management or management of client programmers.
- The Management Consulting Group provides business planning and analysis, feasibility studies, project planning and management, data base audits, data communications and network planning, and design review and system assurance. CHC also develops courses and seminars for customers' staff in programming, management techniques, and advanced training on a continuing education basis. Examples of projects include:
 - Selection of the facility, applications systems, computer equipment, systems software, and personnel for a large national insurance company.
 - Performance of a sysems review for an international airline.
 - Examination of existing data processing capabilities and making systems installation recommendations to corporate executives of a cosmetic company.
- The Financial Services and Communications Services Groups perform technical services for computer program and systems conversions as well as applications development relating to insurance claims, portfolio management analysis, marketing information, stock option trading, inventory control, financial accounting, and other custom applications. Projects have included:
 - Design and development of an inventory control and order processing system for execution of buy and sell orders for a bond trader.
 - Design and development of an expandable data processing system for group medical claims processing.
 - Design and development of new software for administration of an insurance company's group dental plans.

COMPUTER HORIZONS CORPORATION

- Adapting existing software for new hardware installed in a metropolitan school district.
- Maintenance of existing data processing operations of an electronics manufacturer while a new system was under development.
- Design and development of various aspects of new telephone billing systems for telephone organizations created by AT&T's reorganization.

INDUSTRY MARKETS

- The company's business mix has changed significantly since 1986.
 - Revenue from the industrial/manufacturing segment increased 33.3% from fiscal 1986 to 1987 and now accounts for 39.3% of total revenue.
 - The financial services sector grew 42.1% from fiscal 1986 to 1987 and now accounts for 27.9% of total revenue.
 - Communications revenue declined 12.8% from fiscal 1986 to 1987 and now accounts for 32.8% of total revenue.
- A chart comparing revenue mix in fiscal 1987 and 1986 follows:

	<u>2/87</u>	<u>2/86</u>	<u>Growth (Decline)</u>
Communications	\$19.0	\$21.8	(12.8%)
Financial services	16.2	11.4	42.1
Industrial/manufacturing	<u>22.8</u>	<u>17.1</u>	33.3
Revenue from operations	\$58.0	\$50.3	15.0%

- This change in revenue sources is due to leveling off of business from AT&T (40% of revenue in fiscal 1985, 35% in fiscal 1986, and 23% in fiscal 1987) and to rapid growth in the company's other market sectors, particularly the commercial/industrial sector.
- Other clients besides AT&T include General Electric, Prudential-Bache, Metropolitan Life Insurance, International Paper, Bell Laboratories, and Bank of America. The company currently has over 280 clients.
- CHC has traditionally focused its efforts on the following industry sectors.
 - Communications.
 - Brokerage.
 - Banking.
 - Insurance.
 - Utilities.

COMPUTER HORIZONS CORPORATION

- In the last two years CHC has seen rapid growth in new industry markets including the following:
 - Defense.
 - Commercial/industrial.

GEOGRAPHIC MARKETS

- Ninety-nine percent of CHC's revenue is derived from the U.S.
- CHC has a total of 26 offices in the following cities:
 - Arlington (VA).
 - Atlanta (GA).
 - Boston (MA).
 - Charlotte (NC).
 - Cherry Hill (NJ).
 - Chicago (IL).
 - Cincinnati (OH).
 - Cleveland (OH).
 - Columbus (OH).
 - Dallas (TX).
 - Detroit (MI).
 - Denver (CO).
 - Greenwich (CT).
 - Houston (TX).
 - Los Angeles, (CA).
 - Louisville (KY).
 - Miami (FL).
 - Minneapolis (MN).
 - New York (NY).
 - Orlando (FL).
 - Parsippany (NJ).
 - Raleigh (NC).
 - San Francisco (CA).
 - Tampa (FL).
 - Computer Knowledge Software (Chicago, IL).
 - Instruction/Training Centers (Dallas, TX).

COMPUTER HARDWARE

- CHC has IBM PCs in most district offices. For internal administrative purposes CHC uses a remote computing service.



FINANCIAL UPDATE TO COMPANY PROFILE DATED OCTOBER 1984

COMPUTER HORIZONS CORP.
 747 Third Avenue
 New York, NY 10017
 (212) 371-9600

John J. Cassese, Chairman and
 President
 Public Corporation, OTC
 Total Employees: 680
 Total Revenue, Fiscal Year End
 2/29/85: \$44,411,000

**COMPUTER HORIZONS CORPORATION
 FIVE-YEAR FINANCIAL SUMMARY
 (\$ thousands, except per share data)**

ITEM	FISCAL YEAR	2/85	2/84	2/83	2/82	2/81
Revenue		\$ 44,411	\$ 34,380	\$ 20,349	\$ 14,464	\$ 10,924
• Percent increase over previous year		29%	69%	41%	32%	10%
Income before taxes		\$ 4,108	\$ 4,510	\$ 1,520	\$ 830	\$ 566
• Percent increase (decrease) from previous year		(9%)	197%	83%	47%	(23%)
Net Income (a)		\$ 2,019	\$ 2,250	\$ 766	\$ 424	\$ 293
• Percent increase (decrease) from previous year		(10%)	194%	81%	45%	(19%)
Earnings per share (b)		\$ 0.78	\$ 0.91	\$ 0.35	\$ 0.18	\$ 0.13
• Percent increase (decrease) from previous year		(14%)	160%	94%	38%	(28%)

- (a) Restated to reflect cumulative effect of a change in accounting principles.
- (b) Adjusted to reflect a 3-for-2 common stock split paid in July 1983.

- Computer Horizons' management attributes the increase in revenue to the broadening of their customer base beyond the communications and financial services industries with significant contributions to revenue growth from the utility and manufacturing sectors. Decreases in net income and earnings per share are attributed to higher direct costs associated with pricing pressures and higher selling, administrative, and general expenses associated with the addition of eight new district offices and the addition of several senior managers to direct certain corporate and regional activities.

COMPUTER HORIZONS CORP.

SOURCE OF REVENUE

- Computer Horizons derives its revenue from professional services primarily in the custom computer software area, providing system analysis and design and programming services. A two-year source of revenue by industry sector follows (\$ millions):

	<u>2/85</u>	<u>2/84</u>
Professional Services		
Communications	\$20.5	\$15.1
Financial services	10.7	13.6
Other (utilities, manufacturing, defense)	12.9	5.5
Interest and Other	<u>0.3</u>	<u>0.2</u>
	\$44.4	\$34.4

COMPANY HIGHLIGHT

COMPUTER HORIZONS CORP.
747 Third Avenue
New York, NY 10017
(212) 371-9600

John J. Cassese, Chairman and
President
Public Corporation, OTC
Total Employees: 596
Total Revenue, Fiscal Year End
2/29/84: \$34,380,000

THE COMPANY

- Computer Horizons Corp. (CHC), incorporated in New York in 1969, is a custom software development professional services company providing system analysis, design, and programming services to large companies, primarily in the communications and financial services industries.
- Fiscal 1984 revenue reached \$34.4 million, a 69% increase over fiscal 1983 revenue of \$20.3 million. Net income in fiscal 1984 rose 194% to \$2.3 million from \$0.8 million in fiscal 1983. A five-year financial summary follows:

COMPUTER HORIZONS CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR	2/84	2/83	2/82	2/81	2/80
Revenue	\$ 34,380	\$ 20,349	\$ 14,464	\$ 10,924	\$ 9,973	
. Percent increase over previous year	69%	41%	32%	10%	28%	
Income before taxes	\$ 4,510	\$ 1,520	\$ 830	\$ 566	\$ 738	
. Percent increase (decrease) from previous year	197%	83%	47%	(23%)	(27%)	
Net Income (a)	\$ 2,250	\$ 766	\$ 506	\$ 6	\$ 18	
. Percent increase (decrease) from previous year	194%	51%	8,333%	(67%)	(95%)	
Earning per share (b)	\$ 0.91	\$ 0.35	\$ 0.21	\$ -	\$ 0.01	
. Percent increase (decrease) from previous year	160%	67%	-	(100%)	(50%)	

(a) Restated to reflect cumulative effect of a change in accounting principles.
(b) Adjusted to reflect a 3-for-2 stock split in the form of a 50% stock distribution to shareholders of record June 27, 1983.

COMPUTER HORIZONS CORP.

- CHC management attributes increases in revenue to increases in professional staff on billing which increased 61% to 500 in fiscal 1984 compared with 310 in fiscal 1983 and to the increased demand for custom software in the communications and financial services industries created by recent deregulation of these business sectors.
- On September 27, 1983 CHC sold 200,000 shares of common stock and 400,000 common stock purchase warrants in a public offering. Net proceeds were approximately \$2.3 million and provided flexibility for operations as well as cash for acquisitions and expansion.
- In December 1983 CHC announced the acquisition of certain assets of Cincinnati Applied Software, Inc. of Florence (KY) for an undisclosed amount of cash. The operation has been merged with CHC.
- The company has restructured itself into five geographic regions and three specialized industry groups. The industry groups which interact and complement each other are as follows:
 - The Management Consulting Group provides consulting, education, and training services to the data processing community.
 - The Financial Services Group provides systems analysis and design services to the financial industry.
 - The Communications Group provides system application design and development for the communications industry.
- Revenue for the six months ending August 24, 1984 was \$21.0 million, a 39% increase over revenue of \$15.1 million for the same period in 1983. Net income for the period was \$837,000 (32 cents per share) compared with \$903,000 (38 cents per share) for the previous year period.
- As of February 1984 there were 596 employees. There are currently 650 employees segmented as follows:

Marketing/sales	32
Professional services	560
General and administrative	58
	650

- CHC considers its major competitors to be AGS Computers, CGA Computer Associates, Computer Task Group, Data Architects, Software Design Associates, and the Big Eight Accounting Firms.

KEY PRODUCTS AND SERVICES

- Approximately 95% of CHC's revenue is derived from professional services, primarily in the development of customized software for large mainframe

COMPUTER HORIZONS CORP.

computers. The remaining 5% is derived from management consulting assignments as well as from data processing personnel planning and placement services provided to CHC clients through its subsidiary, Beamer Associates.

- CHC provides feasibility and business analysis, system analysis and design, implementation (program design, coding, testing and documentation) and training and education. The majority of CHC revenue is derived from the system analysis and design phase.
 - These applications design and development projects typically last from six months to three years and involve from two to 25 CHC specialists. Services are generally provided on-site and are charged on a time basis on agreements that are terminable by either party on short notice.
 - Projects have been included designing systems for cash management, insurance claims processing, demand deposit accounting, and electronic switching. CHC also recommends equipment and personnel and provides total project management or management of client programmers.
- The Management Consulting Group provides business planning and analysis, feasibility studies, project planning and management, data base audits, data communications and network planning, and design review and system assurance. CHC also develops courses and seminars for customers' staff in programming, management techniques, and advanced training on a continuing education basis. Examples of 1984 projects include:
 - Selection of the facility, applications systems, computer equipment, systems software, and personnel for a large national insurance company.
 - Performance of a systems review for an international airline.
 - Examination of existing data processing capabilities and making systems installation recommendations to corporate executives of a cosmetic company.
- The Financial Services and Communications Services Groups perform technical services for computer programs and systems conversions as well as applications development relating to insurance claims, portfolio management analysis, marketing information, stock option trading, inventory control, financial accounting, and other custom applications. Fiscal 1984 projects included:
 - Design and development of an inventory control and order processing system for execution of buy and sell orders for a bond trader.
 - Design and development of an expandable data processing system for group medical claims processing.

COMPUTER HORIZONS CORP.

- Design and development of new software for administration of an insurance company's group dental plans.
- Adapting existing software for new hardware installed in a metropolitan school district.
- Maintenance of existing data processing operations of an electronics manufacturer while a new system was under development.
- Design and development of various aspects of new telephone billing systems for telephone organizations created by AT&T's reorganization.

INDUSTRY MARKETS

- Companies in the financial services (banking, brokerage houses and insurance firms) and communications industries accounted for 85% of fiscal 1984 revenue. The balance was derived from utilities, manufacturing, distribution and services sectors.
- One company (AT&T) accounted for 30% of 1984 revenue and Merrill Lynch accounted for 9%. Other clients include Prudential-Bache, Metropolitan Life Insurance, International Paper, Bell Laboratories, and Bank of America.

GEOGRAPHIC MARKETS

- One hundred percent of CHC's revenue is derived from across the United States.
- CHC opened offices in eight cities last year bringing the total number of district offices to 17. Offices are located in Los Angeles, San Francisco, Denver, Hartford, Wilmington (DE), Atlanta, Chicago, Detroit, New York, Cincinnati, Houston, Arlington (VA), Parsippany and Cherry Hill (NJ), and Miami, Orlando, and Tampa (FL).

COMPUTER HARDWARE

- CHC has IBM PCs in most district offices. For internal administrative purposes CHC uses a remote computing service.

FINANCIAL UPDATE TO HIGHLIGHT DATED NOVEMBER 1981

COMPUTER HORIZONS CORP.
 747 Third Avenue
 New York, NY 10017
 (212) 371-9600

John J. Cassese, Chairman and
 President
 Public Corporation, OTC
 Total Employees: 380
 Total Revenue, Fiscal Year End
 2/28/83: \$20,349,000

COMPUTER HORIZONS
FIVE-YEAR FINANCIAL SUMMARY
 (\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	2/83	2/82	2/81	2/80	2/79
Revenue	\$ 20,349	\$ 14,464	\$ 10,924	\$ 9,973	\$ 7,791
. Percent increase from previous year	41%	32%	10%	28%	35%
Income before taxes	\$ 1,520	\$ 842	\$ 566	\$ 738	\$ 1,013
. Percent increase (decrease) from previous year	81%	49%	(23%)	(27%)	43%
Net income	\$ 766	\$ 506	\$ 6	\$ 18	\$ 387
. Percent increase (decrease) from previous year	51%	8,333%	(67%)	(95%)	29%
Earnings per share	\$ 0.53	\$ 0.32	\$ 0.01	\$ 0.02	\$ 0.32
. Percent increase (decrease) from previous year	66%	3,100%	(50%)	(94%)	19%

SOURCE OF REVENUE

- One hundred percent of Computer Horizon's fiscal 1983 revenue was derived from professional services.



COMPANY HIGHLIGHT

COMPUTER HORIZONS CORP.
747 Third Avenue
New York, NY 10017
(212) 371-9600

Ronald Finegold, President
and Chairman
Public Corporation, OTC
Total Employees: 325
Total Revenue, Fiscal Year
End 2/28/81: \$10,924,000
Total Computer Services Revenue:
\$10,854,000

PRINCIPAL BUSINESS Computer Horizons Corp. (CHC) provides professional services in the form of customer system analysis, design, and custom programming.

FINANCIALS

FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	2/81	2/80	2/79	2/78	2/77
Revenues	\$10,924	\$ 9,973	\$ 7,791	\$ 5,758	\$ 3,609
. Percent increase from previous year	10%	28%	35%	60%	*
Income before taxes and extraordinary item	\$ 566	\$ 738	\$ 1,013	\$ 710	\$ 381
. Percent increase (decrease) from previous year	(23%)	(27%)	43%	86%	*
Net income	\$ 6	\$ 18	\$ 387	\$ 301	\$ 118
. Percent increase (decrease) from previous year	(67%)	(95%)	29%	155%	*
Earnings per share	\$ 0.01	\$ 0.02	\$ 0.32	\$ 0.27	\$ 0.11
. Percent increase (decrease) from previous year	(50%)	(94%)	19%	145%	*

*Information not readily available due to restatement of income as explained below.

COMPUTER HORIZONS CORP.

- The company discontinued the operations of its OEM Business Systems Division as of August 31, 1979, after experiencing losses of \$214,000 in fiscal 1980 and \$43,000 in fiscal 1979. The OEM Business Systems Division provided turnkey minicomputer business systems.
- The company discontinued the operations of its subsidiary, Custom Terminals Corp., as of February 28, 1981, after subsidizing losses of approximately \$286,000 in fiscal 1981, and approximately \$570,000 overall since its acquisition in December 1976.
- Direct costs and selling, administration, and general expenses increased 12.2% while revenues increased less than 10% for fiscal 1981. Similarly, such costs and expenses increased 36.3% while revenue increased only 28% for fiscal 1980. Management attributes increased costs to the finding, hiring, and maintaining of qualified software experts and the continuing inflationary economic environment.
- Earnings per share have been adjusted to reflect a two-for-one stock split paid to stockholders on November 7, 1980.
- Two of CHC's clients accounted for 35% of consolidated revenue for fiscal 1981.

SOURCE OF REVENUE

Professional services	100%
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PRODUCTS AND SERVICES

- CHC provides systems analysis, design, and programming services to about 97 clients in the banking, insurance, utilities, manufacturing, distribution, and service industries.
 - CHC has experience in project management control, CICS and IMS systems analysis and design.
 - CHC provides custom programming of general business applications such as order entry, inventory control, financial accounting, communications, personnel record keeping, production, retail accounting, as well as industry specific applications. Clients include the Bell System, Con Edison, Metropolitan Life Insurance Company, Citicorp, and Merrill Lynch.

INDUSTRY MARKETS

- The majority of Computer Horizons' revenue is derived from the banking and finance and insurance industry sectors. The company also serves clients in the utility, manufacturing, distribution, services, and energy industry sectors.

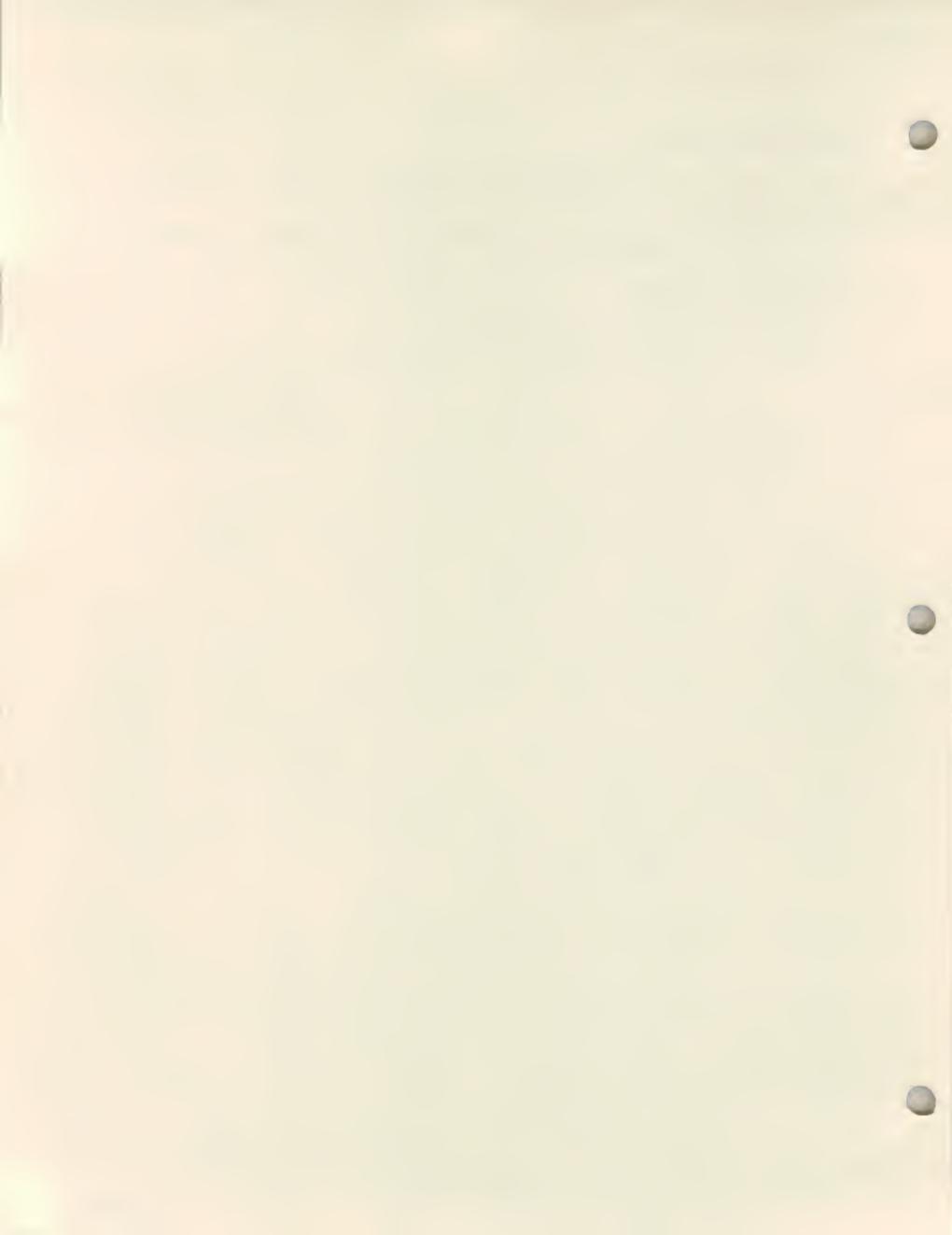
COMPUTER HORIZONS CORP.

GEOGRAPHIC MARKETS

- CHC's clients are located in California, Colorado, Florida, Illinois, New Jersey, New York, Oklahoma, Oregon, and Texas.
- CHC has regional offices in Chicago (IL), Englewood Cliffs (NJ), Houston (TX), Miami (FL), and San Francisco (CA).

COMPUTER HARDWARE

1 DEC PDP 11/34 (For internal use).



COMPANY HIGHLIGHT

COMPUTER HORIZONS CORP.
747 Third Avenue
New York, New York 10017
(212) 371-9600

Ronald Finegold, President
Public Corporation
Total Employees:
Approximately 275
Revenues, Fiscal Year end 2/78:
\$6.8 million

THE COMPANY

- Computer Horizons Corp. (CHC) is an EDP services organization specializing in systems design, programming, and turnkey minicomputer systems.
- Founded in March of 1969 as a professional services organization, it offers contract programming and systems design. In July 1975, CHC entered the turnkey minicomputer business by offering DEC PDP/11 equipment on a OEM basis.
- CHC's revenues increased 76% from 1977 to 1978 while income before taxes and net income climbed a record 155%, as reflected in the five year financial summary below.

ITEM	FISCAL YEAR				
	1978	1977	1976	1975	1974
Revenues	\$6,858,711	\$3,896,485	\$2,768,352	\$2,643,817	\$3,072,995
Income (loss) before Taxes	519,109	202,785	(86,966)	89,152	460,617
Net Income	300,509	117,785	(42,166)	58,431	164,750

- The company is a rapidly expanding, aggressive organization. In 1970, it had just 20 employees and \$304,000 in sales. It now has 275 employees, of which 210 are involved in technical services (including programming and systems analysis). The remaining 65 are in sales, production, and administration.
- The company has targeted segments of the distribution industry with its turnkey system using the DEC PDP/11 series.
 - CHC is continuing to look for candidates for acquisition as a means of growth.

COMPANY HIGHLIGHT/COMPUTER HORIZONS CORP.

- In fiscal year 1976, the company suffered what it claims to be a non-recurring net loss of \$42,000 resulting primarily from the start-up of the OEM minicomputer business preceded by extensive studies of products available for OEM vendors and involving a large marketing buildup.

KEY PRODUCTS AND SERVICES

- The company provides consulting, systems analysis and design, and programming services to approximately 65 clients. Two of those clients account for 41% of CHC's consolidated sales for fiscal 1978. Although its specialties are general business application programs and CICS and IMS software, CHC management claims expertise in many applications and on most computer equipment.
- CHC's turnkey systems are furnished with standard software including order entry and inventory control, invoicing, purchasing, sales orders, and general ledger. CHC customizes its minicomputer software to suit client needs.

APPLICATIONS Approximately 75% of CHC applications are general business. The other 25% are data base and specialty applications. Applications software includes billing, stock transfer, demand deposit accounts, accounts receivable and payable, payroll, personnel, payroll/personnel, inventory control, purchasing, and general ledger.

GEOGRAPHIC MARKETS CHC has branch offices in New York; Englewood Cliffs, New Jersey; Hauppauge, Long Island; Miami, Florida; Atlanta, Georgia; Houston, Texas; and San Francisco, California.

COMPUTER HARDWARE AND SOFTWARE CHC currently has in-house a DEC PDP 11/34 used for development and demonstration purposes.

Not heavy UP

COMPANY HIGHLIGHT

COMPUTER HORIZONS CORPORATION
747 Third Avenue
New York, New York 10017
(212) 371-9600

Ronald Finegold, President
Public corporation
Total employees: approximately 150
Revenues, fiscal year end 2/76:
\$2.8 million

COMPANY BACKGROUND:

2/79-projected \$9m+

- Computer Horizons Corporation (CHC) is an EDP services organization specializing in systems design, programming, and turnkey mini-computer systems.
- Founded in March of 1969 as a professional services organization, it offers contract programming and systems design. In July 1975, CHC entered the turnkey minicomputer business by offering DEC PDP/11 equipment on an OEM basis.

OVERALL ASSESSMENT:

- CHC management's goal is to be "a full service computer software company with a multiplicity of skills in both large mainframes and minicomputers." To this end, it has assembled a staff of approximately 125 programmers and systems design people. It claims expertise in many data processing applications and on most hardware.
- The company is a rapidly expanding, aggressive organization. In 1970, it had just 20 employees and \$304,000 in sales. It has recently entered the OEM minicomputer business with a turnkey distribution system using the DEC PDP/11 series. The company has targeted segments of the distribution industry with this system and is currently installing several systems.
 - CHC is continuing to look for candidates for acquisition as a means of growth.
- In fiscal year 1976, the company suffered what it claims to be a non-recurring net loss of \$42,000 resulting primarily from the start-up of the OEM minicomputer business preceded by extensive studies of products available for OEM vendors and involving a large marketing buildup.

COMPANY HIGHLIGHT/COMPUTER HORIZONS CORPORATION

- The company has a positive cash balance in excess of \$900,000 and no debt. For the six month period ending 8/76, it had sales of \$1,950,000 with a pre-tax profit of \$223,000. Potential risk is involved in the fact that last year, five of CHC's 65 clients accounted for approximately 59% of revenues, one for approximately 20%.
- CHC's willingness to claim expertise in most areas could cause the company to lose money by entering into fixed price contracts in new application areas, in which it has limited expertise. However, the management is showing a prudent attitude toward its turnkey business. The company is concentrating on developing applications and expertise for the one industry which has been targeted for turnkey sales: distribution.

KEY PRODUCTS AND SERVICES:

- The company provided consulting, systems analysis and design, and programming services to approximately 65 clients last year. Although its specialties are general business applications programs and CICS and IMS software, CHC claims expertise in many applications and on most computer equipment.
- CHC's turnkey systems are furnished with standard software including order entry and inventory control, invoicing, purchasing, sales orders, and general ledger. CHC customizes its minicomputer software to suit client needs.

APPLICATIONS:

- Approximately 75% of CHC applications are general business. The other 25% are data base and specialty applications. Applications software includes billing, stock transfer, demand deposit accounts, accounts receivable and payable, payroll, personnel, payroll/personnel, inventory control, purchasing, and general ledger.

GEOGRAPHIC MARKETS: CHC has branch offices in Englewood Cliffs, New Jersey; Atlanta, Georgia; and Miami, Florida. Its clients are primarily located in the Eastern portions of the United States.

COMPUTER HARDWARE AND SOFTWARE: CHC currently has in-house a DEC PDP 11/34 used for development and demonstration purposes.

COMPANY PROFILE

COMPUTER INFORMATION SYSTEMS
165 Bay State Drive
Braintree, MA 02184
(617) 848-7515

Howard Reisman, President and CEO
Private Corporation
Total Employees: 50
Total Revenue, Fiscal Year End
10/31/85: \$5,700,000*

THE COMPANY

- Computer Information Systems (CIS) provides DEC VAX resource management software and associated support services. In addition, the company offers merchandise management software, available as a standalone package, turnkey system, or through processing services.
- INPUT estimates that fiscal 1985 revenue was \$5.7 million. Growth rate in revenue for fiscal 1985 was approximately 25%.
- As of October 31, 1985, CIS had 50 employees, segmented approximately as follows:

Sales/marketing	7
Research and development	20
Customer support	9
Computer operations	9
General and administrative	5
	50

- Competitors include GEJAC, RAXCO, and Signal Technology.

KEY PRODUCTS AND SERVICES

- INPUT estimates that approximately 80% of fiscal 1985 revenue was derived from systems and application software products and associated support services, 15% from processing services, and 5% from turnkey systems.
- Quantum RS, the company's VAX resource management software, provides resource accounting, performance analysis, capacity planning, budgeting, cost tracking, and chargeback.
 - The information generated allows system managers to determine performance problems, optimize system efficiency, improve return on investment by identifying under-utilized systems, and anticipate the need to purchase additional equipment.

*INPUT estimate

COMPUTER INFORMATION SYSTEMS

- With Quantum RS' user-defined reports, system managers can examine combinations of over 35 performance and statistical measures and 30 resources. Key statistics include:
 - CPU to connect time ratio.
 - Page fault rate and page fault I/O rate.
 - Direct and buffered I/O rates.
 - Percentage of CPU used, average number of users.
 - Images executed per hour, interactive processes per day, subprocesses per day, and log-in failures per day.
- Four user-defined reports are described below:
 - The Resource Report reports on any of the 35 resources that are tracked in the system and, if desired, their associated sales figures.
 - The Hourly Resource Data Display produces bar graphs showing resource usage on an hourly basis. Peak usage periods can therefore be calculated.
 - The Resource Analysis Report provides system managers with over 30 statistics for measuring machine usage. The information identifies hardware that may be running at maximum capacity and that might need expansion or modifications.
 - By showing resource utilization trends, the Resource Trend Report helps the system manager predict the point of resource saturation and anticipate the need to buy additional equipment.
- System requirements for Quantum RS include:
 - CPU: VAX with a minimum of 512 kb of memory.
 - Disk Storage: Approximately 14,000 blocks for the program, plus data storage.
 - Operating System: VAX/VMS Version 4.0 or later.
 - Terminal Requirements: DEC VTXXX series are required to run the screen-oriented portion of the Data Display program.
 - Distribution Medium: Standard medium is 9-track 800/1600/6250 BPI magnetic tape--also available on RL02 at an additional charge.
 - No prerequisite software required (other than VMS).
 - No language compiler required.
 - User installation.
- The price for Quantum RS ranges from \$2,500 (microcomputer version) to \$12,000 (VAX mainframe license). There have been approximately 500 installations of the product since its introduction in 1984. Quantum RS sales in 1985 increased 250% from the previous year.

COMPUTER INFORMATION SYSTEMS

- CIS also has an application product for merchandising management, the Merchandise Management System, which is not heavily marketed. The system is used for financial reporting and inventory control, as well as for advertising purposes. Purchases made by customers are sorted by department so that advertisements can be mailed to the best prospects.
 - CIS markets a turnkey system, packaging the Merchandise Management System with DEC equipment ranging from the MicroVAX to large mainframe VAX systems. These turnkey systems have been sold to a few large accounts.
 - Processing services are provided for customers without the hardware needed to run the Merchandise Management System. Remote computing services use one of the DEC VAX 8600s installed at CIS, and IBM PCs or DEC terminals installed at customer sites. Customers access the program through a dial-up system. Data for batch processing is transferred to CIS via phone lines.
 - Pricing for the Merchandise Management System is available upon request.

INDUSTRY MARKETS

- CIS products and services are sold to all industries.
- Users include AT&T Bell Laboratories, Bank of New England, British Petroleum, DEC, Dow Chemical of Canada, GMFanuc Robotics, Honeywell, Midwest Stock Exchange, NASA, Polaroid, Standard Oil of Ohio, Texas Instruments, U.S. Coast Guard, Upjohn, various universities, and more.

GEOGRAPHIC MARKETS

- Approximately 80% of fiscal 1985 revenue was derived from the U.S., 10% was derived from Canada, and 10% from other foreign markets.
- CIS distributes its products and services through direct sales in the U.S. and Canada. Foreign distributors are located in the United Kingdom, Israel, and Holland.

COMPUTER HARDWARE

- CIS has the following hardware installed:
 - 2 DEC VAX 8600s, VMS.
 - 2 DEC VAX-11/780s, VMS.
 - 4 DEC PDP-11/70s, RSTS/E.
 - 2 MicroVAXes, VMS.
 - 30 IBM PCs.



COMPANY PROFILE

COMPUTERIZED LODGING SYSTEMS, INC.

4800 Airport Plaza Drive
Suite 160
Long Beach, CA 90815
(213) 421-2191

David Berkus, President
Private Corporation
Total Employees: 245
Total Revenue, Fiscal Year End
12/31/88: \$21,000,000

The Company

Computerized Lodging Systems, Inc. (CLS), founded in 1974, develops and markets turnkey systems for the lodging and hospitality industry. The company is a value-added reseller for NCR, Unisys, MAI/Basic Four, and Hewlett-Packard minicomputers.

CLS considers itself to be the largest provider (in terms of revenue) of turnkey systems to the hospitality industry. The company specializes in creating interproperty networks to tie management to its various properties, permitting less on-site management personnel.

- CLS' systems interface to telephone, in-room movie, in-room bar, energy management, point of sale, and central reservations systems and its own yield management system. Interfaces are being developed to link properties to their banks for automated cash transfers, to their reservations sources via two way information exchange, and to each other via transparent networks linking central management to properties.

CLS' 1988 revenue reached \$21 million, a 40% increase over 1987 revenue of \$15 million. CLS management states that the company has been profitable for the past 14 years and anticipates that revenues will increase by approximately 28% during 1989.

- The company's growth is attributed primarily to capturing a larger share of the hospitality market and to acquisitions made during the past two years.

CLS has made the following acquisitions:

- In December 1988, CLS acquired Forms Management, Inc. (FMI) of Atlanta (GA). Terms of the purchase were not disclosed.

- FMI develops, manufactures, and markets computer forms used by the hospitality industry to CLS clients, as well as clients of CLS competitors.
- FMI had 28 employees at the time of the acquisition.
- FMI now operates as a wholly owned subsidiary of CLS.
- In December 1987, CLS acquired LANplex Inc. of Fullerton (CA). Terms of the purchase were not disclosed.
 - LANplex installs cabling to interconnect computer systems and terminals for CLS clients, as well as clients in other industries. The company also manufactures passive connectivity products for the computer and communications industries.
 - LANplex, with approximately 35 employees, operates as a division of CLS.
- In the fall of 1986, CLS acquired Conect Computer Systems, Inc. of Walnut Creek (CA). Terms of the purchase were not disclosed.
 - Conect Computer Systems, with approximately 25 employees at the time of the acquisition, marketed Simon, a Pertec-based turnkey system for hotels.
 - The operations of Conect Computer Systems have been merged into CLS.

CLS currently has approximately 245 employees, segmented as follows:

Marketing/sales	30
Customer support	97
Research and development	15
LANplex	35
FMI	28
General and administrative	40
	245

CLS' major competitor is Logistics (Wichita, KS). Other competitors include Encore Computer Systems and over 100 other smaller firms that market systems to the hospitality industry.

Key Products and Services

An estimated \$19 million of CLS' 1988 revenue was derived from turnkey system sales and support services. The remaining \$2 million was derived from cable/hardware sales and installation.

The company's turnkey systems are marketed under the name "CLS" and are available for HP 9000 Series; NCR Tower, Series 400-850; Unisys 5000 Series; and MAI/Basic Four MPX and SPX computers. The software is written in Business BASIC.

- CLS modules are available separately or as an integrated system and include the following:
 - The CLS Property Management System supports front and back office applications, function management, and purchase/inventory analysis.
 - The International PMS System is a property management system with features that support the needs of hoteliers in the world marketplace.
 - The CLS Yield Management System, introduced in 1988, based on artificial intelligence, continuously examines trends created by reservations activity, looking for opportunities to increase the average rate through the imposition of restrictions on rates and occupancy.
 - The CLS Central Reservations System provides hotel groups with centralized management applications.
 - CLS Quik-Check supports credit card check-in and check-out.
 - The CLS Food and Beverage Manager links properties to their point of sale systems for inventory management and sales analysis, and creates a central inventory control for purchasing, requisitioning, inventory, and menu management.
- There are currently over 1,000 CLS systems installed worldwide.

Support services provided by CLS include the following:

- The company provides project planning, project coordination, education and training, and installation services.
- CLS software support includes a 24-hour hotline with remote diagnostic capabilities.

- Hardware maintenance and support is provided by the computer manufacturer.

Industry Markets

Virtually 100% of CLS' revenue is derived from the hospitality industry, including hotels, ski resorts, convention centers, and other central hospitality reservation systems.

Clients include Courtyard by Marriott, Marina Hotels, Atlas Hotels, Sheraton, Quality Inns, and Sonesta International Hotels.

Geographic Markets

Approximately 88% of CLS' 1988 revenue was derived from the U.S. and 12% from international sources.

U.S. offices are located in Long Beach and Oakland (CA), Boston, Chicago, Cincinnati, Denver, Orlando, and Philadelphia.

International offices are located in Amsterdam, London, Mexico City, and Singapore.

CLS also markets its products through 25 dealers outside the U.S.

COMPANY BRIEF

Primary Industry-Specific Market: Other (Hotel/Motel)

Computerized Lodging Systems, Inc. (CLS)
4800 Airport Plaza Drive
Suite 160
Long Beach, Ca 90815
(213) 421-2191

CEO: David Berkus, President
Private Company
Founded: 1974

Employees: 75 (12/86)
Revenue (FYE 12/31/86): \$5-10 million

The Company: Develops and markets turnkey systems for the lodging and hospitality industry

Sources of Revenue:

- Turnkey Systems (100%)

Key Products:

- Turnkey Systems (Utilizes NCR, Burroughs, MAI/Basic Four hardware)
 - Microcomputer-based lodging and hospitality system (SIMON)
 - Minicomputer-based lodging and hospitality system (CompuSystem II)
 - Modules include resort condominium management, food and beverage management, and central reservation systems
 - Programs are written in Business BASIC under agreements with Concept Omega (NJ) and Science Management Corporation (NJ)

Target Industries:

- Hospitality (100%)

Geographic Markets:

- U.S. (95%)
- Non-U.S. (5%)
- Sales Offices: Long Beach and Oakland (CA), Dallas, Boston, Marlton (NJ), Denver, Orlando (FL), Cincinnati, Chicago, and Mexico City
- The company plans to open sales offices in Hawaii, Amsterdam, and Canada

Other:

- CLS is a value-added reseller for NCR, Burroughs, and MAI/Basic Four hardware

December 1986



COMPUTERLAND CORPORATION

5964 West Las Positas Blvd.

Pleasanton, CA 94566

Phone: (510) 734-4000

Fax: (510) 734-4802

Chairman/CEO: William Y. Tauscher

President: Edward R. Anderson

Status: Private

Employees: 2,600*

WW Revenue: \$2,600,000,000

U.S. Revenue: \$1,800,000,000

U.S. Services Revenue: \$280,000,000

FYE: 9/30/92

*Corporate employees

Key Points

- ComputerLand provides service and support to corporate computing clients. The company has a worldwide focus deriving a significant portion of its revenues from non-U.S. markets.
- ComputerLand has diversified its product offerings, increasing its focus on the provision of desktop services as revenue from hardware sales shrink.
- The acquisition of TRW's Customer Service Division has given ComputerLand a combined service business estimated to be worth \$280 million.
- The acquisition of Nynex Business Centers in 1991 allowed ComputerLand to offer clients increased resources and expertise on networks and networking products.
- ComputerLand strategic alliances with system integration and processing services companies like ISSC, have helped ComputerLand to participate in comprehensive outsourcing contracts at Mobile Oil, the U.S. Postal Service, Honeywell and Nabisco.

Company Description

ComputerLand is a worldwide provider of service and support to corporate computing clients, offering network integration, technical help desk services, computer training, and systems maintenance services.

ComputerLand manages over 400 full-service locations in the U.S., and claims to be the world's largest multivendor computer reseller network. ComputerLand Corporation has branches in 40 countries, specializing in the planning, design, installation, and maintenance of complex networks to meet business needs.

Company History

ComputerLand announced a business reorganization in October 1992, which will emphasize company-owned services and sales while still supporting franchising and distribution to independent resellers.

In the new company structure, ComputerLand created two divisions dedicated to specific segments of the business. The new corporate division will manage the company-owned network of branches in major metropolitan areas. The franchise and distribution division will focus on franchisees and independent Datago affiliates. There are a total of 120 company-owned and 300 franchisee-owned ComputerLand outlets in the U.S. The company, one of the largest computer resellers, also formed a third group to support the two divisions.

Financials

ComputerLand's fiscal 1992 worldwide revenues were \$2.6 billion, with U.S. revenue reaching \$1.8 billion. INPUT estimates that 15% of U.S. 1992 revenue was from information services.

Acquisitions

In July 1992, reseller ComputerLand completed its acquisition of one of the San Francisco Bay Area's largest computer resellers, Infomax, Inc. Infomax, of Concord, CA, had revenues of \$150 million. This acquisition of a ComputerLand franchise is part of ComputerLand's nationwide strategy to buy back some of its franchises in major metropolitan areas.

In May 1992, ComputerLand announced the purchase of TRW's Customer Service Division (TRW CSD). TRW CSD reported 1991 revenues of approximately \$110 million, with over 13,000 service customers. The acquisition was finalized July 3, 1992. This acquisition gives ComputerLand access to federal markets.

Total 1992 U.S. revenue for ComputerLand services revenue before the acquisition was \$180 million. ComputerLand estimates that the

combined operation generates approximately \$280 million in U.S. services revenue.

In 1991, ComputerLand acquired NYNEX Business Centers, which substantially expanded their presence in major markets and the Fortune 500 companies. Under the acquisition plan, Nyrex's 77 outlets nationwide would be integrated with ComputerLand's company-owned and franchise outlets.

Key Products and Services

ComputerLand provides service and support through over 600 service branches in 40 countries worldwide. The company is certified as a service provider by Novell, Microsoft, IBM, Compaq, UNIX, and SUN. The ComputerLand Help Desk has a full-time staff of over 100 people, providing services for over 1,500 products to about 12,000 customers. A centralized service dispatch system is used for multilocation accounts.

ComputerLand provides training services through 180 learning centers nationwide, offering over 310 courses using CBT, interactive, and instructor-led training modes and techniques.

Network integration is provided worldwide, with over 22,000 LAN servers and 212,000 network nodes installed in the U.S. in 1991. ComputerLand also offers design tools to facilitate network lay-out, installation, maintenance, support, and project management. The company's networking capabilities support wide-area networks, remote LAN monitoring, LAN interconnection through bridging and routing, LAN diagnostics and monitoring, and multivendor integration.

ComputerLand offers nationwide systems consulting with 1,600 customer engineers and over 500 systems engineers. ComputerLand has a national hardware and maintenance capability with central dispatch of service professionals.

Competitor

Corporate division competitors include JWP Inc, InaCom, and CompuCom.

Franchise and distribution division clients include Intelligent Electronics and MicroAge.

Industry Markets

The combination of ComputerLand and TRW CSD covers all commercial industry markets as a customer base. The acquisition of TRW's Customer Service Division also gives ComputerLand the opportunity to target federal government markets. TRW holds the contracts for the installation, configuration and maintenance of the Army's Personnel Electronic Record Management System and the maintenance for the Justice Department's Project Eagle installations.

Geographic Markets

INPUT estimates that approximately 69% of ComputerLand's 1992 revenue was derived from hardware and services provided to U.S. clients, and 31% from other international clients.

**COMPUTER LANGUAGE
RESEARCH, INC.**

2395 Midway Road
Carrollton, TX 75006
Phone: (214) 250-7000
Fax: (214) 250-8423

Chairman:	Francis Winn
President & CEO:	Stephen T. Winn
Status:	Public Corporation
Stock Exchange:	NASDAQ
Total Employees:	911 (Full-time)
Total Revenue:	\$110,529,000
Fiscal Year End:	12/31/92

Key Points

- Computer Language Research (CLR) has substantially completed the retooling of its tax systems from a mainframe to microcomputer environment, establishing itself as a supplier of advanced network-based software rather than a mainframe processor of tax returns.
- During 1992, CLR acquired Fiduciary Tax Systems (FTS) from CCH Computax, significantly expanding the number of bank trust tax departments using CLR systems and services.
- CLR has introduced, EasyGo, a new software product targeted at small to medium size accounting firms.

Company Description

CLR, founded in 1964, provides tax processing services, software products, and turnkey systems to major accounting firms, corporations, partnerships, and banks under the trade name Fast-Tax®. Over the past seven years, CLR has shifted its focus away from mainframe processing to offering microcomputer-based systems that enable its clients to process tax returns in their own offices.

CLR also markets electronic forms automation software and equipment for use in its tax processing activities and to other forms-intensive businesses such as insurance companies, mortgage banks, financial services organizations, and federal and state governments.

Financials

CLR's 1992 revenue was \$111.0 million, a 4% decrease from \$115.7 million for 1991. A five-year financial summary follows:

**COMPUTER LANGUAGE RESEARCH, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ millions, except per share data)**

ITEM	FISCAL YEAR				
	1992	1991	1990	1989	1988
Revenue	\$111.0	\$115.7	\$119.4	\$126.1	\$117.4
· Percent change from previous year	(4%)	(3%)	(5%)	7%	15%
Income (loss) before taxes	\$7.8 (a) 22%	\$6.4 (a) 188%	(\$7.3) (a) *	\$0.6 (b) 121%	(\$2.8) (16%)
Net income (loss)	\$12.3 (c) 224%	\$3.8 184%	(\$4.5) (743%)	\$0.7 133%	(\$1.9) (27%)
Earnings (loss) per share	\$0.89 (c) 218%	\$0.28 185%	(\$0.33) (760%)	\$0.05 136%	(\$0.14) (27%)

* Percent change exceeds 1,000%.

- (a) Includes \$1.8 million loss from the sale of a building in 1992 and restructuring charges of approximately \$1.0 million in 1991 and \$5.1 million in 1990.
- (b) Includes a \$1.5 million gain from the sale of the company's Micro-Tax software product line.
- (c) Includes a \$5.7 million (\$0.41 per share) cumulative effect from a change in the method of accounting and a \$1.1 million (\$0.08 per share) gain from extinguishing debt from a building sold during the year.

Revenue from the tax business segment decreased 8% from \$106 million in 1991 to \$97.7 million in 1992 due to lower prices for tax processing services, lower systems sales, and tax processing software problems encountered in early 1992 in the accounting tax market.

- Lower prices for tax processing services resulted from competitive pressures and a change in mix from mainframe to in-house tax processing.
- These declines were partially offset by increased sales volume in the bank tax market due to the acquisition of FTS Corporation (which contributed \$2.2 million to CLR's 1992 revenue) and increased product success.
- It is anticipated that revenue will continue to decline in the accounting tax market, partially offset by revenue growth in the other tax markets.
- Operating profits in the tax business segment were \$12.9 million in 1992, compared to \$11.8 million in 1991.

Electronic form systems revenue increased 37% to \$13.3 million due to significantly higher systems sales. Operating profit was \$400,000 in 1992, compared to a \$1.2 million loss in 1991.

Research and development expenses were approximately \$4.2 million in 1992, \$3.0 million in 1991, and \$4.0 million in 1990.

Revenue for the three months ending March 31, 1993 was \$34.5 million, compared to \$36.8 million for the same period in 1992. Net income was \$4.6 million, compared to \$11.4 million for the same period a year ago, which includes \$5.7 million for the cumulative effect of a change in the method of accounting.

Acquisitions

In July 1992, CLR acquired FTS Corporation from CCH Computax, Inc. for approximately \$7.5 million. The acquisition was accounted for as a purchase.

- FTS, with 27 employees and 1991 revenue of approximately \$7.3 million, provides computerized trust tax processing services for banks.
- The operations of FTS have been merged into CLR's tax operations.

During the first quarter of 1991, CLR made the following acquisitions:

- Wenz Systems, Inc., a company specializing in the bank tax market
- The Freedom Group, a software product line for the insurance tax market

Alliances

CLR is a large Industry Remarketer for IBM and a value-added reseller for various other manufacturers.

Employees

As of December 31, 1992, CLR had 911 permanent full-time employees. The company also employs more than 120 temporary employees in operations and customer service during its peak tax processing season in March and April.

Competitors

Major competitors include CCH Computax (a subsidiary of Commerce Clearing House), as well as various regional and local income tax return processors.

Key Products and Services

Approximately 88% (\$97.7 million) of CLR's 1992 revenue was derived from tax return-related processing and software products. The remaining 12% (\$13.3 million) of revenue was derived from electronic forms software and laser printer systems. A three-year summary of source of revenue follows:

**COMPUTER LANGUAGE RESEARCH, INC.
THREE-YEAR SOURCE OF REVENUE SUMMARY
(\$ millions)**

ITEM	FISCAL YEAR					
	1992		1991		1990	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Tax processing and software	\$97.7	88%	\$106.0	92%	\$109.0	91%
Electronic form systems	13.3	12%	9.7	8%	10.4	9%
TOTAL	\$111.0	100%	\$115.7	100%	\$119.4	100%

Since 1965, CLR has implemented four generations of technology for processing tax returns. Although all four are still offered by the company, the trend is away from mainframe tax processing and toward client in-house microcomputer processing:

- Service Bureau Tax Processing: Clients submit input forms to a local Fast-Tax service center for mainframe batch processing. CLR enters the data and computes and prints the final return. Currently, mainframe processing is being replaced by a system of networked microcomputers called the GoCenter. The Go Center is an array of 486 microcomputers, file servers, and large hard disks linked to provide parallel computing and data storage. It is used to process tax returns for clients who require service bureau processing.
- On-Line Tax Processing: Clients control the entire production process for their returns from a terminal in their office, while still relying on CLR for original data entry and high speed laser printing.
- Client Data Input Tax Processing (Production System): Clients key data from input forms, transmit the data to CLR's GoCenter for computation, and print the finished returns on laser printers located in their offices. The Production System was renamed Production System 2 in 1992 to reflect its advanced capabilities and its delivery via CD ROM.
- Client In-House Tax Processing Software: GoSystem, introduced in 1987, is a microcomputer-based software product that processes tax returns completely in-house. In 1992, this software was renamed GoSystem 2 to reflect its upgraded capabilities as a complete electronic tax desktop that includes fully integrated compliance, tax research, tax planning, and tax practice management.
 - The GoSystem runs on IBM AT or PS/2 series microcomputers. It is designed to run in a local-area environment, but can operate on a standalone basis.
 - EasyGo, introduced in 1992, is a standalone, in-house tax automation system for smaller accounting firms that do not require all the features of GoSystem 2.
 - CLR has linked GoSystem and EasyGo software to the OnPoint electronic tax research data base offered by Research Institute of America.
 - System 5 is a version of GoSystem 2 for the corporate tax market. System 5 automates the tax compliance and planning efforts of large and medium corporations with internal tax departments. Fixed asset and management modules were added during 1992.

CLR offers GoCenter processing, the Production System, and the GoSystem to accounting firms nationwide.

- Tax processing products and services are available to accounting firms that prepare expatriate returns for U.S. citizens temporarily living abroad. CLR supports clients in over 40 cities located in 25 foreign countries.
- CLR also offers tax department local-area network (LAN) solutions for CPA firms, including LAN consulting and design, equipment, operating software, installation, training, and support.
- CLR provides Network Control Center (NCC), a LAN package that may include modems, file servers, optional attached processors, and an uninterrupted power supply in a single cabinet. NCC was designed for use with the GoSystem, but also processes most IBM-compatible software applications. NCC is marketed primarily to medium and large accounting firms with a large number of users who can benefit from the economies of a LAN and distributed processing.

For the corporate tax market, CLR offers System 5, a family of microcomputer-based products designed to automate the tax compliance and planning efforts of large and medium corporations with internal tax departments.

- System 5 includes software to process federal single-company and consolidated returns, state single-company and combined reports. System 5 also includes software to process sales-and-use tax returns for over 250 state and local taxing jurisdictions, as well as modules for corporate tax planning under the requirements of Financial Accounting Standards Board Statement 109 and for international tax planning and compliance.
- Modules for the insurance industry include Insurance Tax Compliance Software (ITCS) and Automated Premium Tax Software (APT).
- Through its Alliance program with selected Big 6 accounting firms, partners are able to provide consulting services to help implement and integrate System 5 software with accounting systems used internally by CLR's corporate clients.
- To date, over 1,420 corporate tax departments use System 5.

CLR also provides tax return and K-1 processing services to large partnerships, including syndications and Master Limited Partnerships.

- Services include a system designed to assist in the production and distribution of investor information.
- CLR also offers Investor Relations Workstation, a microcomputer-based investor information retrieval system that uses optical disk technology.

CLR provides fiduciary tax processing services to banks with internal trust departments.

- Due to the large volume of returns prepared, bank clients customarily provide monthly taxpayer data to CLR on magnetic tape or via electronic transmission.
- The trust accounting data is generally bridged to CLR from the bank's internal trust accounting system or from third-party suppliers of trust accounting services.
- Data may be bridged at year-end for annual tax reporting (Standard Bridge service) or monthly (Detail Bridge service).
- SmartBridge, for Detail Bridge clients, uses expert system technology to analyze trust tax transactions.
- The Estimate Analysis SYstem (EASY) allows bank trust departments to comply with electronic filing rules imposed by the IRS.

In 1992, CLR released E-Form, a CD ROM-based tax form retrieval system designed to completely replace a tax professional's printed tax form service. E-Form operates under Microsoft Windows and includes over 15,000 pages of tax-related forms and instructions. Forms can be viewed and completed on-screen then either printed blank or completed. Completed forms can be stored on the user's hard disk.

CLR's Electronic Forms Systems (EFS) business contributed 12% to 1992 revenue. EFS enables clients to electronically print forms on blank paper, eliminating the need for a large inventory of preprinted forms, reproduction facilities, and collation equipment.

- An electronic image of each form is stored in the computer and displayed on various display devices when and where needed.
- EFS software is available for IBM and compatible mainframes and microcomputers.

- CLR uses EFS in conjunction with its tax processing operations and has successfully marketed EFS to the insurance industry, mortgage banks, and the federal government.

CLR also develops and markets its Formwriter laser printers to its tax and EFS clients.

Industry Markets

CLR sells its Fast-Tax products and services in four primary markets as follows:

- The accounting tax market includes public accounting firms in the U.S. and abroad that prepare tax returns. The size of these firms range from the largest national firms to sole practitioners. This includes national public accounting firms as well as many regional and large local firms with complex tax practices.
- The corporate tax market consists of large corporations that process consolidated federal tax returns, a variety of state returns, and have the need for other tax-related planning and administrative tasks. CLR also markets various products to large insurance companies.
- The partnership tax market includes large syndications and master limited partnerships.
- The bank/trust tax market includes medium and large commercial banks that offer trust services to their customers and use CLR's tax processing services to process both federal- and state-generated fiduciary income tax returns, as well as other beneficiary information.

KPMG Peat Marwick contributed 10.1%, 11.4%, 11.8%, and 11.3% to CLR's 1991, 1990, 1989, and 1988 revenue, respectively.

Geographic Markets

Approximately 98% of CLR's revenue is derived from the U.S. and 2% from overseas operations.

CLR has sales and support facilities in 20 cities throughout the U.S.

CLR also provides tax processing services to accounting firms and large corporations that provide tax preparation services to U.S. citizens living abroad. Support offices for these services are located in the U.S.

COMPANY PROFILE

**COMPUTER LANGUAGE
RESEARCH, INC.**
2395 Midway Road
Carrollton, TX 75006
(214) 250-7000

Francis Winn, Chairman
Stephen T. Winn, President and CEO
Public Corporation, NASDAQ
Total Employees: 1,232 (Full-time)
Total Revenue, Fiscal Year End
12/31/90: \$119,389,000

The Company

Computer Language Research, Inc. (CLR), founded in 1964, provides tax processing services, software products, and turnkey systems to major accounting firms, corporations, partnerships, and banks under the trade name Fast-Tax®.

- CLR also markets electronic forms automation software and equipment for use in its tax processing activities and to other forms-intensive businesses such as insurance companies, mortgage banks, financial services organizations, and federal and state governments.
- CLR is a large Industry Remarketer for IBM and a value-added reseller for various other manufacturers.

Over the past five years, CLR has been implementing a program to retool its mainframe tax processing system to operate on networked microcomputers.

- During this period, the company has invested nearly \$85 million in tax-related product development, including expenses associated with maintaining parallel mainframe and network-based tax systems.
- In anticipation of the downsizing of its mainframe capacity, CLR reduced permanent employment as of the end of 1990 by approximately 200 employees. CLR also recorded a \$5.1 million restructuring charge in the fourth quarter of 1990. The charge provides reserves for the excess capacity that will no longer be needed once all tax systems are moved to the newer network technology.
- When the transition from mainframe to network computing is complete, CLR management expects total employment to decline by over 30% from its peak. The company also expects significant reductions in nonlabor expenses. With its new

technology, returns that are submitted to CLR for processing will be processed through networked microcomputers rather than an IBM 3090 mainframe.

CLR's 1990 revenue was \$119.4 million, a 5% decrease from 1989 revenue of \$126.1 million. Net losses were \$4.5 million, compared to net income of \$650,000 for 1989. A five-year financial summary follows:

**COMPUTER LANGUAGE RESEARCH, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ millions, except per share data)**

ITEM	FISCAL YEAR				
	1990	1989	1988	1987	1986
Revenue	\$119.4	\$126.1	\$117.4	\$102.1	\$93.4
Percent increase (decrease) from previous year	(5%)	7%	15%	9%	(5%)
Income (loss) before taxes	\$(7.3) (a)	\$0.6 (b)	\$(2.8)	\$(2.4)	\$(0.3)
Percent increase (decrease) from previous year	*	121%	(16%)	(723%)	(104%)
Net income (loss)	\$(4.5)	\$0.7	\$(1.9)	\$(1.5)	\$0.2
Percent increase (decrease) from previous year	(743%)	133%	(27%)	(811%)	(95%)
Earnings (loss) per share	\$(0.33)	\$0.05	\$(0.14)	\$(0.11)	\$0.02
Percent increase (decrease) from previous year	(760%)	136%	(27%)	(650%)	(94%)

* Percent change exceeds 1,000%.

- (a) Includes restructuring charges of approximately \$5.1 million.
- (b) Includes a \$1.5 million gain from the sale of the company's Micro-Tax software product line.

CLR management attributes 1990 results to the following:

- CLR's tax business contributed \$109.0 million to 1990 revenue and had \$1.7 million in operating profit, compared to 1989 revenue of \$116.5 million and operating profit of 12.9 million.
- Lower revenues were attributed to a reduction in average prices for processing income tax returns and lower tax-processing systems sales.

- Lower prices for tax processing resulted primarily from a change in mix from mainframe to in-house tax processing. In-house processing results in lower prices per tax return to CLR because more data entry and printing responsibilities are transferred to the client.
- Future price declines are expected due to the migration of CLR's tax business from the traditional mainframe service bureau approach to the micro-based approach and competitive pressures from the marketplace as the power of microcomputer-based systems increases.
- The electronic forms systems business had 1990 revenue of \$10.4 million and operating losses of \$3.9 million, compared to 1989 revenue of \$9.6 million and operating losses of \$6.8 million. Higher revenues resulted mainly from forms software and services sold to insurance companies.

Total product development expenditures were \$23.3 million in 1990, \$21.6 million in 1989, and \$20.1 million in 1988.

Revenue for the three months ending March 31, 1991 was \$39.3 million, a 10% decrease from \$43.5 million for the same period in 1990. Net income was \$7 million, compared to \$5.6 million for the same period a year ago. Cost reductions of \$6.6 million were primarily due to internal adjustments made to accommodate the move to client in-house tax processing and the continuation of cost containment programs set in place during 1990.

During the first quarter of 1991, CLR made the following acquisitions:

- Wenz Systems, Inc., a company specializing in the bank tax market
- The Freedom Group, a software product line for the insurance tax market

As of December 31, 1990, CLR had 1,232 permanent full-time employees. The company also employs more than 200 temporary employees in operations and customer service during its peak tax processing season in March and April.

Major competitors include CCH Computax (a subsidiary of Commerce Clearing House), as well as various regional and local income tax return processors.

Key Products and Services

Approximately 91% (\$109.0 million) of CLR's 1990 revenue was derived from tax return-related processing and software products. The remaining 9% (\$10.4 million) of revenue was derived from electronic forms software and laser printer systems.

CLR currently provides products and services in two basic markets: the ATM (Accounting Tax Market), which provides products and services for medium-to-large CPA firms; and the BTM (Business Tax Market), which offers products and services for corporations, partnerships, banks, and trusts. CLR currently provides tax processing products for more than 5,000 accounting firms, financial institutions, and major corporations.

Since 1965, CLR has introduced four generations of technology for processing tax returns. Although all four are still offered by the company, the trend is away from mainframe tax processing and toward client location microcomputer processing:

- Mainframe Tax Processing: Clients submit input forms to a local Fast-Tax service center for batch processing. CLR enters the data and computes and prints the final return, providing 48-hour turnaround in most major cities.
- On-Line Tax Processing: Clients use a terminal or microcomputer in their offices to enter reruns on-line, determine the status of returns, or revise processing instructions. CLR provides the original data entry and printing.
- Client Data Input Tax Processing (Production System): Clients key data from input forms, transmit the data to Fast-Tax data centers for computation, and print the finished returns on laser printers located in their offices.
- GoSystem: Introduced in 1987, GoSystem is a microcomputer-based software product that processes tax returns completely in-house. A version of the system is also available for the corporate tax market (System 5).
 - The GoSystem runs on IBM AT or PS/2 series microcomputers. It is designed to run in a local-area environment, but can operate on a standalone basis.
 - CLR provides all equipment and training required.

CLR offers mainframe-based processing, the Production System, and the GoSystem to accounting firms nationwide.

- During 1990, CLR negotiated long-term agreements with two international Big 6 accounting firms to implement the GoSystem on a firmwide basis over the next three years. In addition, CLR extended its agreement with KPMG Peat Marwick for another five years.
- Tax processing products and services are available to accounting firms that prepare expatriate returns for U.S. citizens temporarily living abroad. CLR supports clients in over 40 cities located in 25 foreign countries.
- CLR also offers tax department local-area network (LAN) solutions for CPA firms, including LAN consulting and design, equipment, operating software, installation, training, and support.
- CLR provides Network Control Center (NCC), a LAN package that may include modems, file servers, optional attached processors, and an uninterrupted power supply in a single cabinet. NCC was designed for use with the GoSystem, but also processes most IBM-compatible software applications. NCC is marketed primarily to medium and large accounting firms with a large number of users who can benefit from the economies of a LAN and distributed processing.

For the corporate tax market, CLR offers System 5, a family of microcomputer-based products designed to automate the tax compliance and planning efforts of large and medium corporations with internal tax departments.

- System 5 includes software to process federal single-company and consolidated returns, state single-company and combined reports. System 5 also includes software to process sales-and-use tax returns for over 250 state and local taxing jurisdictions, as well as modules for corporate tax planning under the requirements of Financial Accounting Standards Board Statement 96 and for international tax planning and compliance.
- Modules released for the insurance industry include Insurance Tax Compliance Software (ITCS) and Automated Premium Tax Software (APT).
- Over 200 corporations switched to System 5 during 1990 in addition to the 200 that switched in 1989. To date, over 900 corporate tax departments use System 5.
- CLR's mainframe tax processing services enable corporations to offload the labor-intensive data entry and print activities. Input

forms are filled out by the client and mailed to CLR for processing. The data is keyed and computed, and a consolidated corporate return is printed by CLR. Clients can control the production process and make changes on-line from microcomputers located in the offices.

CLR also provides tax return and K-1 processing services to large partnerships, including syndications and Master Limited Partnerships.

- Services include a system designed to assist in the production and distribution of investor information. During 1990, over two million investor packages were produced.
- CLR also offers Investor Relations Workstation, a microcomputer-based investor information retrieval system that uses optical disk technology.

CLR provides fiduciary tax processing services to banks with internal trust departments.

- Due to the large volume of returns prepared, bank clients customarily provide monthly taxpayer data to CLR on magnetic tape or via electronic transmission.
- The trust accounting data is generally bridged to CLR from the bank's internal trust accounting system or from third-party suppliers of trust accounting services.
- Data may be bridged at year-end for annual tax reporting (Standard Bridge service) or monthly (Detail Bridge service).
- SmartBridge is a new product for Detail Bridge clients that uses expert system technology to analyze trust tax transactions.
- The Estimate Analysis SYstem (EASY) allows bank trust departments to comply with electronic filing rules imposed by the IRS in 1988.

CLR's Electronic Forms Systems (EFS) business contributed 9% to 1990 revenue. EFS enables clients to electronically print forms on blank paper, eliminating the need for a large inventory of preprinted forms, reproduction facilities, and collation equipment.

- An electronic image of each form is stored in the computer and displayed on various display devices when and where needed.

- EFS software is available for IBM and compatible mainframes and microcomputers.
- CLR uses EFS in conjunction with its tax processing operations and has successfully marketed EFS to the insurance industry, mortgage banks, and the federal government.

CLR also develops and markets its Formwriter laser printers to its tax and EFS clients.

Industry Markets

CLR sells its Fast-Tax products and services in four primary markets as follows:

- The accounting tax market includes over 15,000 public accounting firms that prepare tax returns in the U.S. The size of these firms range from the largest national firms to sole practitioners. This includes national public accounting firms as well as many regional and large local firms with complex tax practices.
- The corporate tax market consists of large corporations that process consolidated federal tax returns, a variety of state returns, and have the need for other tax-related planning and administrative tasks.
- The partnership tax market includes large partnerships, including Master Limited Partnerships.
- The bank tax market includes medium and large commercial banks that offer trust services to their customers and used CLR's tax processing services to generate fiduciary tax returns.

KPMG Peat Marwick contributed 11.4%, 11.8%, and 11.3% to CLR's 1990, 1989, and 1988 revenue, respectively.

Geographic Markets

Approximately 98% of CLR's revenue is derived from the U.S. and 2% from overseas operations.

CLR has sales and support facilities in 25 cities throughout the U.S.

CLR also provides tax processing services to accounting firms and large corporations that provide tax preparation services to U.S. citizens living abroad. Support offices for these services are located in the U.S. and London.

**Computer
Hardware and
Software**

CLR has the following mainframes installed at its headquarters:

- 1 IBM 3090, MVS
- 1 IBM 3084 QX, MVS

CLR's on-line processing services are supported by a private data communications network.

- High-speed access is available via a private leased-line network consisting of more than 40,000 miles of leased lines serving over 1,800 terminals and printers located throughout the U.S.
- Standard-speed access is offered via SprintNet and TYMNET.

COMPANY PROFILE

**COMPUTER LANGUAGE
RESEARCH, INC.**
2395 Midway Road
Carrollton, TX 75006
(214) 250-7000

Francis Winn, Chairman
Stephen T. Winn, President and CEO
Public Corporation, NASDAQ
Total Employees: 1,472 (Full-time)
Total Revenue, Fiscal Year End
12/31/88: \$117,434,000

The Company

Computer Language Research, Inc. (CLR), founded in 1964, provides tax processing services, software products, and turnkey systems to accounting firms, corporations, partnerships, and banks under the trade name Fast-Tax®.

- CLR also markets electronic forms automation software and equipment for use in its tax processing activities and to other forms-intensive businesses such as insurance companies, mortgage banks, financial services organizations, and federal and state governments.
- CLR is a large Industry Remarketer for IBM and a Value Added Reseller for various other manufacturers.

CLR's 1988 revenue reached \$117.4 million, a 15% increase over 1987 revenue of \$102.1 million. Net losses were \$1.9 million, compared to net losses of \$1.5 million in 1987 and are attributed to heavy investments in research and development. A five-year financial summary follows:

COMPUTER LANGUAGE RESEARCH, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	1988	1987	1986	1985	1984
Revenue • Percent increase (decrease) from previous year	\$117,434 15%	\$102,100 9%	\$93,392 (5%)	\$98,729 1%	\$98,184 15%
Income (loss) before taxes • Percent increase (decrease) from previous year	\$(2,807) (a) (16%)	\$(2,427) (723%)	\$(295) (104%)	\$7,805 (28%)	\$10,877 (12%)
Net income (loss) • Percent Increase (decrease) from previous year	\$(1,944) (27%)	\$(1,529) (811%)	\$215 (95%)	\$4,647 (29%)	\$6,571 (23%)
Earnings (loss) per share • Percent increase (decrease) from previous year	\$(0.14) (27%)	\$(0.11) (650%)	\$0.02 (94%)	\$0.34 (28%)	\$0.47 (28%)

(a) Includes a \$1.5 million gain from the sale of the company's Micro-Tax software product line.

CLR management attributes revenue growth during 1988 to increased sales in all tax markets and increased sales of electronic forms systems.

- CLR's tax business contributed \$105.7 million to 1988 revenue and had \$7.7 million in operating profit, compared to 1987 revenue of \$92.8 million and operating profit of \$8.1 million.
- The electronic forms systems business had 1988 revenue of \$11.7 million and operating losses of nearly \$8 million, compared to 1987 revenue of \$9.3 million and operating losses of \$7.4 million.

Net losses were attributed primarily to the following:

- Operating results for the past three years reflect a continued transition of the company's CPA tax market from mainframe to microcomputer technology. Prices for CLR's mainframe

technology were dropping as clients moved to the new microcomputer technology.

- Recognizing this trend, CLR began to retool its mainframe tax processing software, resulting in the introduction of the GoSystem for microcomputers in May 1987.
- Total product development expenditures were \$20.1 million in 1988 compared to \$17.8 million in 1987. The higher expenditures in 1988 were the result of continued development of tax processing microcomputer software and the initial development expenditures for the company's local area network products.
- Selling, general, and administrative costs were \$41.4 million in 1988, compared to \$31.5 million in 1987. The increase principally reflects CLR's expanded sales and marketing efforts for its electronic forms systems and tax products.

Revenue for the nine months ending September 30, 1989 reached \$92.7 million, an 8% increase over \$86 million for the same period in 1988. Net income was \$864,000, compared to a net loss of \$2.2 million for the same period a year ago.

During 1988, CLR sold its Micro-Tax software product line.

As of December 31, 1988, CLR had 1,472 permanent full-time employees. The company also employs more than 200 temporary employees in operations and customer service during its peak tax processing season in March and April.

Major competitors include CCH Computax (a subsidiary of Commerce Clearing House), as well as various regional and local income tax return processors.

Key Products and Services

INPUT estimates approximately 72% of CLR's 1988 revenue was derived from income tax return processing services, 15% from turnkey systems, and 12% from software product sales. The remaining 1% of 1988 revenue was derived from systems integration services.

CLR provides tax processing products and services to over 5,000 accounting and financial institutions and over 1,500 major corporations.

CLR tax processing services and products provided to the domestic CPA market include the following:

- Batch services, where clients submit input forms to a local Fast-Tax service center for processing. CLR enters the data and computes and prints the final return, providing 48-hour turnaround in most major cities.
- "On-line" services enable clients to use a microcomputer in their offices to enter reruns on-line, determine the status of returns, or revise processing instructions. CLR provides the original data entry and printing.
- "In-house" processing services allow clients to key data from input forms, transmit the data to Fast-Tax data centers for computation, and print the finished return on a laser printer located their office.
- The GoSystem is a microcomputer-based software product that processes tax returns completely in-house.
 - The GoSystem runs on IBM AT or PS/2 series microcomputers on a standalone basis or in a local area network environment.
 - CLR provides all equipment and training required.
- CLR offers tax department local area network (LAN) solutions for CPA firms, including LAN consulting and design, equipment, operating software, installation, training, and support.
 - CLR provides Network Control Center (NCC), a LAN package that may include modems, file servers, optional attached processors, and uninterrupted power supply in a single cabinet. NCC was designed for use with the GoSystem, but also processes most IBM-compatible software applications. NCC is marketed primarily to medium and large accounting firms with a large number of users who can benefit from the economies of a LAN and distributed processing.

Tax processing products and services provided to medium and large corporations include the following:

- CLR's mainframe tax processing services enable corporations to offload the labor intensive data entry and print activities. Input forms are filled out by the client and mailed to CLR for processing. The data is keyed, computed, and a consolidated corporate return is printed by CLR. Clients can control the

production process and make changes on-line from a microcomputer located in their office.

- System 5 is a family of microcomputer software products that allows corporations to process their consolidated returns and sales and use tax returns on microcomputers located in their offices.
 - System 5 can process allocation and apportionment, all state returns, selected combined state reports, year-round accounting for income taxes, and international tax management and planning.

CLR also provides processing services to large partnerships and syndicators.

- CLR also began providing data and paper processing services to master limited partnerships (MLPs) in 1987. The Fast-Tax MLP Systems provides ownership accounting and year-end tax processing.

CLR provides fiduciary tax processing services to banks with internal trust departments.

- Trust accounting data is generally bridged to CLR from the bank's internal trust accounting system or from third party suppliers of trust accounting services.
- Data may be bridged at year-end for annual tax reporting (Standard Bridge service) or monthly (Detail Bridge service).
- During 1988, CLR began marketing the Estimate Analysis SYstem (EASY), which allows bank trust departments of comply with electronic filing rules imposed by the IRS in 1988.

CLR's Electronic Forms Systems (EFS) business contributed 10% to 1988 revenue. EFS enables clients to electronically print forms on blank paper, eliminating the need for a large inventory of preprinted forms, reproduction facilities, and collation equipment.

- An electronic image of each form is stored in the computer and displayed on various display devices when and where needed.
- EFS software is available for IBM and compatible mainframes and microcomputers.

- CLR uses EFS in conjunction with its tax processing operations and has successfully marketed EFS to the insurance industry, mortgage banks, and the federal government.

CLR also develops and markets its Formwriter laser printers to its tax and EFS clients.

Industry Markets

CLR sells its Fast-Tax products and services in four primary markets as follows:

- The accounting tax market includes over 15,000 public accounting firms that prepare tax returns in the U.S. The size of these firms range from the largest national firms to sole practitioners.
- The corporate tax market consists of large corporations that process consolidated federal tax returns, a variety of state returns, and have the need for other tax-related planning and administrative tasks.
- The partnership tax market includes large partnerships.
- The bank tax market includes medium and large commercial banks that offer trust services to their customers and used CLR's tax processing services to generate fiduciary tax returns. During 1988, over 300,000 trust tax returns were processed by CLR.

The eight largest national public accounting firms contributed over 30% to CLR's 1988 revenue.

Geographic Markets

Approximately 99% of CLR's revenue is derived from the U.S. and 1% from overseas operations.

CLR has sales and support facilities in 29 cities throughout the U.S.

CLR also provides tax processing services to accounting firms and large corporations that provide tax preparation services to U.S. citizens living abroad. Support offices for these services are located in the U.S. and London.

**Computer
Hardware and
Software**

CLR has the following mainframes installed at its headquarters:

- 1 IBM 3081 KX, MVS
- 1 IBM 3984 Q

CLR's on-line processing services are supported by its Marathon data communications network.

- Marathon offers high-speed access via a private leased-line network consisting of more than 40,000 miles of leased lines serving over 1,800 terminals and printers located throughout the U.S.
- Standard speed access is offered via Telenet and Tymnet.



FINANCIAL UPDATE TO PROFILE DATED OCTOBER 1986

**COMPUTER LANGUAGE RESEARCH,
INC.**

2395 Midway Road
Carrollton, TX 75006
(214) 250-7000

Francis Winn, Chairman
Stephen T. Winn, President and CEO
Public Corporation, OTC
Total Employees: 1,298 (Full-time)
Total Revenue, Fiscal Year End
12/31/86: \$93,392,000

**COMPUTER LANGUAGE RESEARCH, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

Item \ Fiscal Year	1986	1985	1984	1983	1982
Revenue • Percent increase (decrease) from previous year	\$ 93,392 (5%)	\$ 98,729 0.6%	\$ 98,184 15%	\$ 85,215 24%	\$ 68,985 31%
Income (loss) before taxes • Percent increase (decrease) from previous year	\$ (295) (104%)	\$ 7,805 (28%)	\$ 10,877 (12%)	\$ 12,301 16%	\$ 10,635 15%
Net income • Percent increase (decrease) from previous year	\$ 215 (95%)	\$ 4,647 (29%)	\$ 6,571 (23%)	\$ 8,520 13%	\$ 7,562 30%
Earnings per share • Percent increase (decrease) from previous year	\$ 0.02 (94%)	\$ 0.34 (28%)	\$ 0.47 (28%)	\$ 0.65 8%	\$ 0.60 30%

- CLR management attributes revenue declines in 1986 to lower prices for mainframe tax processing services. Declines in net income were attributable to lower revenue and increased expenditures for the development and marketing of new products.
 - Product development expenditures were approximately \$16.3 million (17% of revenue) in 1986, compared to \$14.5 million (15% of revenue) in 1985, and \$12 million (12% of revenue) in 1984.

COMPUTER LANGUAGE RESEARCH, INC.

- Revenue for the six months ending June 30, 1987 was \$54.2 million, compared to \$54.2 million for the same period in 1986. Net income was \$1.9 million, compared to \$3.8 million for the same period a year ago.
 - Increased sales of Electronic Forms Systems were partially offset by a decline in sales of mainframe tax processing services to accounting firms.
 - An operating loss of \$3.6 million was incurred in the second quarter of 1987, compared to an operating loss of \$1.9 million reported in 1986. For the six month period ending June 30, 1987 operating income declined 52% to \$3.1 million from \$6.5 million in 1986. Declines were the result of higher expenses for sales and marketing of Electronic Forms Systems and tax processing services, increased cost of equipment sales, and additional expenditures for expansion of micro-computer support operations.

NEW PRODUCTS AND SERVICES

- CLR has expanded its tax processing software products to include Corporate Series Mainframe Software for very large corporate tax departments.
 - In December the company acquired Interface/InfoPrep, a mainframe software package that extracts and summarizes mainframe general ledger data for tax reporting.
 - In late 1986 the company acquired TPS (Tax Processing System), a mainframe product that is used to process federal and state tax returns, collect tax data, and calculate, analyze, review, and print workpapers.
- In 1986 CLR introduced a Sales and Use Tax System designed to compute the sales tax and electronically print sales tax returns for all state taxing jurisdictions in the U.S.
- CLR began offering data and paper processing services to Master Limited Partnerships (MLPs) in early 1987.
 - The Fast-Tax MLP System offers complete ownership accounting with an investor relations capability that enables MLP clients to keep partners informed about their investment. The system also provides a year-end tax processing capability designed to accommodate almost any MLP partnership agreement.
 - The Fast-Tax MLP System is fully integrated with the company's printing and distribution facilities.
- In May 1987 CLR introduced the GoSystem for in-house tax processing for medium and large accounting firms. The product has been under development for nearly three years and is being tested in major client locations around the U.S. It is designed to run on a standalone IBM AT microcomputer.

COMPANY PROFILE

**COMPUTER LANGUAGE RESEARCH,
INC.**
2395 Midway Road
Carrollton, TX 75006
(214) 250-7000

Francis Winn, Chairman
Stephen T. Winn, President and CEO
Public Corporation, OTC
Total Employees: 1,369 (Full-Time)
Total Revenue, Fiscal Year End
12/31/85: \$98,729,000

THE COMPANY

- Computer Language Research, Inc. (CLR), founded in 1964, provides income tax processing services, microcomputer-based software products, and turnkey systems to tax professionals under the trade names FAST-TAX® and Micro-Tax® . CLR also markets electronic forms automation software and equipment for use in its tax processing activities and for sale in non-tax-related applications.
- 1985 revenue reached \$98.7 million, a 0.6% increase over 1984 revenue of \$98.2 million. Net income declined 29% from \$6.6 million in 1984 to \$4.6 million in 1985. A five-year financial summary follows:

**COMPUTER LANGUAGE RESEARCH, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR	1985	1984	1983	1982	1981
Revenue		\$ 98,729	\$ 98,184	\$ 85,215	\$ 68,985	\$ 52,726
• Percent increase from previous year		0.6%	15%	24%	31%	44%
Income before taxes		\$ 7,805	\$ 10,877	\$ 12,301	\$ 10,635	\$ 9,236
• Percent increase (decrease) from previous year		(28%)	(12%)	16%	15%	22%
Net income		\$ 4,647	\$ 6,571	\$ 8,520	\$ 7,562	\$ 5,803
• Percent increase (decrease) from previous year		(29%)	(23%)	13%	30%	23%
Earnings per share		\$ 0.34	\$ 0.47	\$ 0.65	\$ 0.60	\$ 0.46
• Percent increase (decrease) from previous year		(28%)	(28%)	8%	30%	21%

COMPUTER LANGUAGE RESEARCH, INC.

- CLR's revenue from its tax business remained constant during 1985 and reflected a shift from sales of mainframe tax processing services to sales of microcomputer tax workstations and related products and services.
- Decreases in net income during 1985 were caused primarily by increased expenses associated with product development and marketing of electronic forms systems.
 - Research and development expenditures were approximately \$14.5 million (15% of revenue) in 1985, \$12 million (12% of revenue) in 1984, and \$9.9 million (12% of revenue) in 1983.
- Revenue for the six months ending June 30, 1986 was approximately \$54.2 million, a 12% decrease from \$61.4 million for the same period in 1985. Net income for the period declined 58% from \$8.9 million in 1985 to \$3.8 million in 1986.
 - Revenue declines are attributed to more competitive market conditions and the ongoing migration of tax processing from CLR mainframes to workstations located in client offices. Revenue from electronic forms systems more than doubled in the second quarter and first half.
 - Declines in income reflect decreased revenue from tax processing and continued increased expenditures associated with the development and marketing of electronic forms systems.
- As of December 31, 1985, CLR had 1,369 permanent full-time employees. In addition, the company uses more than 500 temporary employees in operations and customer service during its peak tax processing season in March and April.
- Major competitors of CLR for tax processing services include CCH Computax, Inc. (a subsidiary of Commerce Clearing House, Inc.) and Dynatax (a division of McDonnell Douglas Information Systems Group). The company also competes with regional and local income tax processing firms. Microcomputer software competitors include CPAids, AMI, Creative Solutions, and Volts.

KEY PRODUCTS AND SERVICES

- INPUT estimates approximately 85% of CLR's 1985 revenue was derived from income tax return processing services, 10% from IBM PC-based turnkey systems, and 3% from tax processing and electronic forms management software. The remaining 2% was derived from laser printer sales.
- CLR's FAST-TAX division sells its tax processing services, software, and turnkey products in four primary markets--Domestic CPA, Corporate, Bank Trust, and International.
 - CLR provides its income tax processing services under the trade name FAST-TAX to over 4,600 clients. The company processes all types of

COMPUTER LANGUAGE RESEARCH, INC.

tax returns, including federal and state individual, corporate, partnership, fiduciary, and exempt organization returns. Processing is provided for nearly 300 federal and over 1,500 state and city tax forms. The FAST-TAX processing service is presently available in batch or on-line modes.

- Mainframe processing begins with the Organizer, a working document on which taxpayer information is collected and analyzed by the tax preparer.
- Information recorded on the Organizer is used as input to CLR mainframes either by CLR personnel or directly from the tax preparer's office via Marathon, CLR's nationwide private communications network. Access to Marathon is provided by a FAST-TAX Workstation (described below) or an on-line personal computer.
- Via on-line access, tax preparers can examine and analyze alternative tax treatment options during the preparation process. Answers to "what-if" questions can be displayed in the preparer's office in various display terminals or microcomputers.
- Completed returns are printed on blank paper using CLR's high-speed laser printer located either at CLR's data or support center or in the preparer's office. Returns printed at CLR's data center are shipped to the preparer.
- CLR currently retains taxpayer data for a period of one year until the subsequent year's tax return is processed. Copies of printed tax returns are not retained.
- During 1985 CLR introduced Financial Sense, a financial planning product available to clients as a processing service.
 - Financial Sense allows CLR clients to offer short- and intermediate-term financial plans to their clients using much of the same data gathered from the taxpayer's data base developed in the tax return process.
- CLR markets and supports three series of tax processing software products designed for IBM and compatible microcomputers. The products have standalone capabilities and can interface with client mainframes.
 - The Corporate Series, introduced in 1985, is designed to serve the needs of large corporations that process their tax returns internally. The products process federal and state tax returns and automate administrative and planning tasks associated with tax compliance. The products include:

COMPUTER LANGUAGE RESEARCH, INC.

- Corporate Series Trial Balance Interface Software.
- Corporate Series Federal System.
- Corporate Series Allocation and Apportionment.
- Corporate Series State System.
- Corporate Series Tax Planner.
- Corporate Series Tax Administrator.
- Corporate Series Sales Tax Administrator.
- . The CPA Series is targeted to the domestic CPA market.
- . The Bank Series is targeted to large commercial banks for fiduciary tax processing.
- Other microcomputer software marketed through the FAST-TAX division includes:
 - . FAST-TAX 1040 Planner for evaluating current and future year tax planning strategies.
 - . FAST-TAX LINK permits on-line access to CLR mainframes from an IBM or compatible microcomputer.
 - . Various "bridges" that permit tax data to be extracted from other microcomputer software products for FAST-TAX processing.
- During 1985 CLR developed and made initial shipments of its FAST-TAX Workstation, an integrated tax processing turnkey system that permits the tax preparer to process tax returns on-line with CLR mainframes or in-house.
 - . Tax data is stored on CLR's mainframe computers and clients access their data base to perform the functions of data entry, processing/computation (for individual returns), and printing in their office. More complex individual returns are processed on CLR computers.
 - . The FAST-TAX Workstation includes a CLR Formwriter Laser Printing System, an IBM PC/AT, a hard disk, a dial-up modem, FAST-TAX Link communications software, and FAST-TAX CPA Series Tax Processing software.
- The Micro-Tax division provides microcomputer-based tax processing software products and turnkey systems primarily to smaller accounting firms and individual practitioners whose business does not require FAST-TAX mainframe tax processing.
 - The Micro-Tax software products run on IBM and compatible microcomputers and include the following:

COMPUTER LANGUAGE RESEARCH, INC.

- 1040 Federal Bronze, 1040 Federal Silver, 1040 Federal Gold, and 1040 International Gold are federal tax packages with varying capabilities.
- 1120 Corporate Gold for corporate tax applications.
- 1065 Partnership Gold for partnership tax applications.
- 1040 State Packages.
- 1040 Tax Organizer, a historical and current data collection format for the taxpayer.
- 1040 Tax Planner for tax strategies and planning.
- The CLR Micro-Tax Workstation combines Micro-Tax software with an IBM XT or AT microcomputer and a CLR Formwriter 2 laser printer.
- CLR also markets Electronic Forms Systems which provide a complete forms automation capability ranging from composing, viewing, and managing to printing and distributing electronic forms.
 - Electronic Forms Systems allow the user to electronically print forms on blank paper. Electronic images of each form are stored in the computer and displayed on various display devices when and where needed. The user can enter information directly onto an electronic image of a form, bypassing the need for preprinted paper forms. Forms can be printed on high-speed laser printers supported by the system.
 - Electronic Forms Systems are available for IBM mainframes and IBM and compatible microcomputers.
 - A central forms management system is used to create and store more than 100,000 electronic forms on a customer's mainframe. A distributed forms management system, installed at remote sites, allows the customer to store forms at the central site and control distribution of forms to remote locations using various display terminals and laser printers.
 - CLR's goal is to become the leading supplier of forms automation products not only for tax processing applications but also for other businesses whose operations require a large volume and variety of forms.
- CLR also develops and markets its Formwriter Laser Printing Systems which are sold separately and as a component of the FAST-TAX or Micro-Tax workstation. The Formwriter can be linked to a personal computer to become a forms workstation.

COMPUTER LANGUAGE RESEARCH, INC.

INDUSTRY MARKETS

- CLR segments its FAST-TAX business into four primary markets as follows:
 - The domestic CPA tax market includes public accounting firms that prepare tax returns in the U.S. The size of these firms range from the largest national firms to sole practitioners.
 - The corporate tax market is composed of the 5,000 largest corporations that use internal tax departments to prepare tax returns. These corporations use CLR services to process large consolidated federal tax returns, state returns, and for tax planning.
 - The bank trust market is composed of large commercial banks that offer trust services to their clients and use CLR's tax processing services to prepare fiduciary tax returns.
 - The international tax market consists of professional organizations that prepare expatriate returns for U.S. citizens employed outside the U.S. The company's clients in this market include national public accounting firms with internationally-based operations.
- CLR markets the Micro-Tax products to smaller public accounting firms.

GEOGRAPHIC MARKETS

- One hundred percent of CLR's 1985 revenue was derived from the U.S.
- CLR has 33 service centers in 26 U.S. cities including Atlanta, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Denver, Detroit, Hartford, Houston, Los Angeles, Miami, Minneapolis, New Orleans, Newport Beach, New York City, Philadelphia, Phoenix, Pittsburgh, Portland, Sacramento, San Diego, San Francisco, St. Louis, Tampa, and Washington, D.C.
- An international office is located in London to support U.S. citizens filing expatriate returns.

COMPUTER HARDWARE AND SOFTWARE

- CLR has the following mainframes installed at its headquarters:
 - 1 IBM 3081 KX, MVS.
 - 1 IBM 3084 Q.
- CLR's on-line processing services are supported by its Marathon data communications network.
 - Marathon offers high-speed access via a private leased-line network consisting of more than 40,000 miles of leased lines serving over 1,800 terminals and printers located throughout the U.S.
 - Standard speed access is offered via Telenet and Tymnet.

FINANCIAL UPDATE TO PROFILE DATED AUGUST 1983*

**COMPUTER LANGUAGE RESEARCH,
INC.**
2395 Midway Road
Carrollton, TX 75006
(214) 250-7000

Francis Winn, Chairman
Stephen T. Winn, President and CEO
Public Corporation, OTC
Total Employees: 1,274 (Full-time)
Total Revenue, Fiscal Year End
12/31/84: \$98,184,000

**COMPUTER LANGUAGE RESEARCH, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR	1984	1983	1982	1981	1980
Revenue		\$ 98,184	\$ 85,215	\$ 68,985	\$ 52,726	\$ 36,681
. Percent increase from previous year		15%	24%	31%	44%	40%
Income before taxes		\$ 10,877	\$ 12,301	\$ 10,635	\$ 9,236	\$ 7,543
. Percent increase (decrease) from previous year		(12%)	16%	15%	22%	83%
Net income		\$ 6,571	\$ 8,520(a)	\$ 7,562(a)	\$ 5,803(a)	\$ 4,728(a)
. Percent increase (decrease) from previous year		(23%)	13%	30%	23%	95%
Earnings per share		\$ 0.47	\$ 0.65(a)	\$ 0.60(a)	\$ 0.46(a)	\$ 0.38(a)
. Percent increase (decrease) from previous year		(28%)	8%	30%	21%	100%

(a) Restated to reflect pro forma tax adjustments estimating additional federal income tax which would have been provided had the company filed consolidated income tax returns with its FAST-TAX of New York, Inc. (FTNY) subsidiary and Winn Properties general partnership. In March 1983 the partnership with Winn Properties was dissolved for state law purposes. In April 1983 FTNY was dissolved and Computer Language Research assumed all of its operations.

- Computer Language Research management attributes the decline in net income to increased costs and expenses in 1984. These items totaled \$88 million in 1984, compared to \$72.2 million in 1983.

*Replaces Financial Update of May 1984

COMPUTER LANGUAGE RESEARCH, INC.

- Cost of revenues increased primarily due to increased depreciation and amortization expenses, increased data communications expenses, and higher expenditures for product development efforts on forms automation software.
- Selling, general, and administrative expenses increased principally due to increased sales personnel and additional marketing expenditures incurred to support future sales of microcomputer tax software and forms automation products.
- Revenue for the three months ending March 31, 1985 was \$36.6 million, an increase of 4% over \$35.3 million for the same period in 1984. Net income for the period increased less than 1% to \$7.2 million.

SOURCE OF REVENUE

- Approximately 85% of Computer Language Research's 1984 revenue was derived from income tax processing services, 10% from printing services (including hardware and software sales), and the remaining 5% from microcomputer software and various other services.

2 of 2
April 1985

FINANCIAL UPDATE TO HIGHLIGHT DATED AUGUST 1983

**COMPUTER LANGUAGE RESEARCH,
INC.**
2395 Midway Road
Carrollton, TX 75006
(214) 934-7000

Francis Winn, Chairman
Stephen T. Winn, President
Public Corporation, OTC
Total Employees: 1,289 (Full-time)
Total Revenue, Fiscal Year End
12/31/83: \$85,215,000

**COMPUTER LANGUAGE RESEARCH, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR	1983	1982	1981	1980	1979
		\$ 85,215	\$ 68,985	\$ 52,726	\$ 36,681	\$ 26,214
Revenue						
• Percent increase from previous year		24%	31%	44%	40%	38%
Income before taxes		\$ 12,301	\$ 10,635	\$ 9,236	\$ 7,543	\$ 4,114
• Percent increase from previous year		16%	15%	22%	83%	79%
Net income (a)		\$ 8,520	\$ 7,562	\$ 5,803	\$ 4,728	\$ 2,419
• Percent increase from previous year		13%	30%	23%	95%	40%
Earnings per share (a)		\$ 0.65	\$ 0.60	\$ 0.46	\$ 0.38	\$ 0.19
• Percent increase from previous year		8%	30%	21%	100%	36%

- (a) Restated to reflect pro forma tax adjustments estimating additional federal income tax which would have been provided had the company filed consolidated income tax returns with its FAST-TAX of New York, Inc. (FTNY) subsidiary and Winn Properties general partnership. In March 1983 the partnership with Winn Properties was dissolved for state law purposes. In April 1983 FTNY was dissolved and Computer Language Research assumed all of its operations.
- On January 17, 1984, Computer Language Research acquired Microcomputer Tax Systems, Inc. (Micro-Tax), located in Woodland Hills (CA) for approximately \$15 million, primarily in stock (648,000 shares).
 - Micro-Tax provides tax processing software for microcomputers.

COMPUTER LANGUAGE RESEARCH, INC.

SOURCE OF REVENUE

- Approximately 97% of Computer Language Research's 1983 revenue was derived from income tax return processing services. The remaining 3% was derived from applications software sales, utility processing, contract printing, and various other services.

COMPANY HIGHLIGHT

COMPUTER LANGUAGE RESEARCH,

INC.

2395 Midway Road
Carrollton, TX 75006
(214) 934-7000

Francis Winn, Chairman

Stephen T. Winn, President

Public Corporation, OTC

Total Employees: 1,149 (Full-time)

Total Revenue, Fiscal Year End

12/31/82: \$68,985,443

THE COMPANY

- Computer Language Research, Inc. (CLR), founded in 1964, provides income tax processing services to tax professionals under the trade name FAST-TAX®. In 1981 the company also began marketing S!Printer, a document processing software package.
- In May 1983 CLR made an initial public offering of 2.2 million shares of common stock, of which 1.1 million shares were offered by the company and 1.1 million shares by selling shareholders. Net proceeds to the company of approximately \$21.3 million will be used to repay bank indebtedness, to expand CLR's principal facilities, and for general corporate purposes.
- 1982 revenue reached nearly \$69 million, a 31% increase over 1981 revenue of \$52.7 million. Pro forma net income rose 30% from \$5.8 million in 1981 to \$7.6 million in 1982. A five-year financial summary follows:

COMPUTER LANGUAGE RESEARCH, INC.

COMPUTER LANGUAGE RESEARCH, INC.
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	1982	1981	1980	1979	1978
Revenue	\$ 68,985	\$ 52,726	\$ 36,681	\$ 26,214	\$ 18,934
• Percent increase from previous year	31%	44%	40%	38%	45%
Income before taxes	\$ 10,635	\$ 9,236	\$ 7,543	\$ 4,114	\$ 2,297
• Percent increase from previous year	15%	22%	83%	79%	21%
Net income (a)	\$ 7,562	\$ 5,803	\$ 4,728	\$ 2,419	\$ 1,728
• Percent increase from previous year	30%	23%	95%	40%	N/A
Earnings per share (a)	\$ 0.60	\$ 0.46	\$ 0.38	\$ 0.19	\$ 0.14
• Percent increase from previous year	30%	21%	100%	36%	N/A

(a) Restated to reflect pro forma tax adjustments estimating additional federal income tax which would have been provided had the company filed consolidated income tax returns with its FAST-TAX of New York, Inc. (FTNY) subsidiary and Winn Properties general partnership. In March 1983 the partnership with Winn Properties was dissolved for state law purposes. In April 1983 FTNY was dissolved and CRL assumed all of its operations.

- Management attributes revenue growth to the greater volume of processed returns and higher revenue per return resulting from an increase in pricing and services rendered per return.
- Research and development costs reached \$6.7 million (10% of revenue) in 1982 as compared to \$5.4 million (10% of revenue) in 1981 and \$3.3 million (9% of revenue) in 1980.
 - The company expects that product development expenditures for 1983 will increase by approximately 50% over 1982 due to continued funding of several new products.
- Revenue for the six months ending June 30, 1983 reached \$55.1 million, a 22% increase over \$45.1 million for the same period in 1982. Net income for the period declined 5%, from \$11.7 million in 1982 to \$11.1 million in 1983.
 - The decrease in net income was primarily due to a shift in revenue previously derived in the second quarter and now generated in the third quarter as the result of an IRS ruling permitting the automatic exten-

COMPUTER LANGUAGE RESEARCH, INC.

sion of tax return filings from June 15 to August 15 for individuals, and from June 15 to September 15 for corporations.

- As of December 31, 1982, CLR had 1,149 permanent full-time employees. In addition, the company uses more than 700 temporary employees in operations and client service during its peak tax processing season in March and April. As of June 1983 the company had 1,149 full-time employees, segmented as follows:

Marketing/sales	120
Product development	198
Client service	127
Operations	582
Executive, financial, and administrative support	<u>122</u>
	1,149

- Major competitors of CLR include CCH Computax, Inc. (a subsidiary of Commerce Clearing House, Inc.) and Tymshare, Inc. (DYNATAX). The company also competes with smaller income tax processing firms preparing returns on a regional basis.

KEY PRODUCTS AND SERVICES

- Ninety-seven percent of CLR's 1982 revenue was derived from income tax return processing services. The remaining 3% was derived from applications software sales, utility processing, contract printing, and various other services.
- CLR provides its income tax processing services under the trade name FAST-TAX to over 4,600 clients. The company processes all types of tax returns, including federal and state individual, corporate, partnership, fiduciary, deferred compensation, and exempt organization returns. Processing is provided for over 220 federal and 1,100 state tax forms.
- The FAST-TAX service is presently available in batch or on-line modes.
 - In using the batch service, the accounting firm has the taxpayer fill out CLR's Organizer data collection booklet.
 - Information contained in the Organizer is analyzed and transcribed by the accounting firm onto a set of specially designed input forms which are sent to CLR for data entry and tax computation.
 - In advance of printing the final tax return, the accounting firm has the option to request CLR to prepare checkout workpapers which replace accountant tax workpapers and provide a reconciliation between source data entered on the Organizer and final data entered on the tax return.

COMPUTER LANGUAGE RESEARCH, INC.

- Clients can telephone tax return changes to one of 28 FAST-TAX service centers in the U.S. or to the service center in the United Kingdom.
 - After the client is satisfied that the return is complete, CLR is requested to print the final tax return.
- The Organizer booklet is also completed by the taxpayer for the accounting firm when using the on-line service. The data transcription phase is automated with Source 1040, a product introduced in 1982.
 - Source 1040 enables the tax accountant to enter the taxpayer's data from the Organizer into a computer terminal and transmit it directly to CLR via Marathon, CLR's data communications network.
 - Upon completion of data entry, the tax accountant instructs CLR to calculate the tax.
 - Accountants can use CLR's VIDEO-TAX application during the tax analysis phase to immediately ascertain the impact of various tax calculations for a particular return.
 - When the return is complete, final tax return data can either be printed on the client's in-house printer or at CLR facilities.
- CLR provides clients with processing, computation, printing, and collating of tax returns under a yearly contract.
 - CLR receives a non-refundable registration fee of \$250 and charges clients separately for pre-tax season services and any other special services requested.
 - The company historically renews a high percentage of its contracts. Approximately 95% of the clients for whom CLR processed 10 or more returns in 1982 renewed their contracts in 1983.
- In 1981 CLR introduced S'Printer®, a document processing software package which automates form, text, and business graphics composition.
 - S'Printer, originally developed to produce CLR's tax processing forms, runs on IBM and compatible mainframes and transmits output to FAST-TAX 4-15 or Xerox 9700 laser printers.
 - The S'Printer package includes print-line and text processing and a compiler. Options include a font and logo digitization program, a spelling checker, and a hyphenation dictionary.

COMPUTER LANGUAGE RESEARCH, INC.

- CLR has made several new product announcements, as follows:
 - Beginning in January 1984 CLR will offer Micro-Line processing as a third mode of delivery for its FAST-TAX clients.
 - Several software packages will be available for IBM, Apple, and Tandy personal computers (PC) to link the client's PC to the Marathon network, capture and transfer tax data to CLR's computers, and receive checkout workpapers and final tax return data for subsequent printing at the client's site.
 - CLR is expanding and converting its Marathon communications network to a new private network design which will be less costly, support more terminals, and provide faster response time. The new network, the Marathon Gateway, will support both high speed and standard speed access.
 - In April 1983 CLR announced the FAST-TAX 4·15 laser printer, designed to print tax returns at a client's office.
 - FAST-TAX 4·15 includes S'Printer software operating on an IBM PC connected to a laser printer to which the company has added hardware and software for increased capabilities.
 - This product, scheduled for client use during the first quarter of 1984, will allow clients with Micro-Line access to FAST-TAX services to print finished collated tax returns in-house at a speed of 8 to 10 pages per minute.

INDUSTRY MARKETS

- CLR segments its FAST-TAX business into four primary markets as follows:
 - The domestic tax market includes all third-party preparers of tax returns located in the U.S. Services provided to over 3,600 certified public accounting firms accounted for approximately 85% of CLR's 1982 revenue.
 - The corporate tax market is composed of public and private corporations which use internal tax departments to prepare tax returns. These corporations generally have 10 or more subsidiaries and more than \$50 million in annual revenue. Revenue from the CLR's approximately 670 corporate clients represented 7% of 1982 revenue.
 - The international tax market consists of professional organizations that prepare expatriate returns for U.S. citizens employed outside the U.S. The company's 160 clients in this market include public accounting firms and large corporations that prepare tax returns internally for their expatriate employees. Revenue from this market represented 4% of CLR's total 1982 revenue.

COMPUTER LANGUAGE RESEARCH, INC.

- The bank trust market is composed of bank trust departments using tax processing services to prepare fiduciary tax returns. CLR primarily markets its services to large banks with assets over \$2 billion. In 1982 the company also entered the small- and medium-sized bank market. CLR's approximately 200 banking clients contributed 1% to 1982 revenue.
- The remaining 3% of revenue was derived from clients across industry sectors.

GEOGRAPHIC MARKETS

- One hundred percent of CLR's 1982 revenue was derived from the U.S.
- CLR has 28 service centers in 26 U.S. cities including Atlanta, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Denver, Detroit, Hartford, Houston, Los Angeles, Miami, Minneapolis, New Orleans, Newport Beach, New York City, Philadelphia, Phoenix, Pittsburgh, Portland, Sacramento, San Diego, San Francisco, St. Louis, Tampa, and Washington, D.C.
- An international office is located in London to support U.S. citizens filing expatriate returns.

COMPUTER HARDWARE AND SOFTWARE

- CLR has the following mainframes installed at its headquarters:
 - 1 IBM 3081 K, MVS.
 - 1 Amdahl V/8, MVS.
 - 1 Amdahl 5860, MVS.
- CLR's on-line processing services are supported by its Marathon data communications network.
 - Marathon offers high speed access via a private leased-line network consisting of more than 40,000 miles of leased lines serving over 1,800 terminals and printers located throughout the U.S.
 - Standard speed access is offered via Telenet and Tymnet.
- CLR uses FAST-TAX 4+15 and Xerox 9700 laser printers for printing collated finished tax returns.

Lee Ross
Corp Div B Mkt
Dropped by
Acquired by
Anscom

COMPANY HIGHLIGHT

COMPUTER MANAGEMENT INC.
1100 Keith Building
Cleveland, OH 44114
(216) 579-0080

David D. Ludwick, President
Private corporation
Total employees: 125
Total revenues for fiscal year end
3/31/78: \$3,000,000

THE COMPANY

- Computer Management Inc. (CMI) was founded as an Ohio Corporation in 1969. It began by offering traditional batch processing services and currently provides professional services as well.
- Revenues for fiscal 1979 are projected to reach \$4.5 million, a 50% increase over those of fiscal 1978. Fiscal 1978 revenues of \$3 million showed an increase of approximately 36% over 1976 revenues of \$2.2 million.
- Employees are distributed through CMI's four divisions and one subdivision as follows:

- Systems Division	50
- Data Services Division	10
- Financial Services Division	16
- Com Division	25
- Microcom Inc., subdivision of COM Div.	24
	<hr/>
	125 people

KEY PRODUCTS AND SERVICES

- Processing services and professional services each generated about 50% of fiscal 1978 revenues.
 - Batch services generated 100% of processing revenues for fiscal 1978 and are provided by CMI's Data Services and COM Divisions.
 - Professional services are offered by the Systems Division.
- The Data Services Division provides the following batch processing services: custom programs (primarily used by customers for general business applications), block time, and a few standard business packages.
 - Management plans to add on-line capability to the Data Services Division during 1979 and may offer access to some of its software products through remote job entry.

COMPANY HIGHLIGHT/COMPUTER MANAGEMENT INC.

- This division is actively seeking facilities management contracts (no revenues are now derived from FM) and opportunities to provide backup and overflow services.
- The COM Division and its subdivision convert customer data from magnetic tape to micro-fiche and micro-film. In addition, it distributes COM and COM-related supplies and equipment.
- The Systems Division offers contract programming, systems design, and consulting.
 - CMI management considers its consulting expertise to be data base oriented in OS and DOS operating environments that may also employ VS, IMS, CICS, and DL/I.
 - The emphasis is being shifted away from contract programming and toward industry oriented applications, according to management. Targeted industries include manufacturing and distribution.
 - The Division offers primarily consulting services to manufacturers although systems design and contract programming are also available. Applications specialties include manufacturing requirements planning, materials management, production control, and product distribution systems.
 - In addition to professional services, the Systems Division has recently begun to market software products.
 - Profits. It is a Point-of-Sale, order point, and inventory control software package for auto parts retailers. It is offered as part of a turnkey system. NEAT, Inc., a hardware integrator, provides the Data General Corporation NOVA/3 running under IRIS and the maintenance. Ford Motor Credit offers end user financing. The first installation will be complete in January, 1979. During 1979, CMI will expand the applications software to include wholesale applications.
 - CMI is about to offer an IMS-based, on-line purchasing/receiving/accounts payable system. At the time of this writing, CMI had an agreement in principal to the exclusive marketing rights of such a product. The developer will receive royalties.
 - Beginning in fiscal 1979, the Systems Division will provide maintenance associated with software products sales.
- The Financial Services Division was formed during the first quarter of calendar 1978 when CMI acquired marketing rights to four software products developed by the National City Bank of Cleveland. This Division now markets these software products to banks.
 - The four products are:
 - CIMS, Customer Information Management System. It is a customer information file.

COMPANY HIGHLIGHT/COMPUTER MANAGEMENT INC.

- DDAIS, Demand Deposit Accounting Information System. It performs on-line demand deposit accounting.
- COEFTS, Customer Oriented Electronic Funds Transfer System. It is an EFT package.
- Money Manager. It provides combined descriptive bank statements.
- Approximately 18 customers have purchased a total of 30 licenses for these products.
- Principal markets for these software products are banks with deposits of between \$200 million and \$2 billion and with computer equipment running under DOS or OS operating systems.
- Several bank customers offer these products to correspondent banks.
- Software licenses range in price from \$35,000 to \$90,000 plus any optional features selected.

APPLICATIONS INPUT estimates that general business (accounting) and utility (COM) services jointly generate 90% of processing services revenues. Specialty services generate the remaining 10% of processing revenues.

INDUSTRY MARKETS

- Manufacturing generated the majority of total fiscal 1978 revenues, as shown in this approximate distribution of revenues.

- Manufacturing	40%
discrete	35
process	5
- Banking and finance (mostly commercial banks)	25
- Distribution	20
retail	0
wholesale	20
- Other industries, including transportation, utilities, hospitals, and local government	<u>15</u>
	100%
- In fiscal 1979, profits sales will produce revenues from auto dealers (retail distribution).

COMPANY HIGHLIGHT/COMPUTER MANAGEMENT INC.

GEOGRAPHIC MARKETS

- Revenues for fiscal 1978 were distributed by geographic region approximately as follows:

- East North Central (mostly Ohio and also Indiana and Michigan)	65%
- Middle Atlantic (mainly Pennsylvania, New York, and West Virginia)	<u>35</u>
	100%
- Branch offices are located in Pittsburgh and Houston.

COMPUTER HARDWARE AND SOFTWARE

- Processing services are provided on the following computer hardware:
 - One IBM System/360 Model 40 running under DOS.
 - One IBM System/360 Model 30 running under DOS.
 - One CDC Omega 480 CPU running under OS/VIS and DOS/VIS is on order.
- CMI typically uses customer equipment in providing its Systems Division services.

FINANCIAL UPDATE TO HIGHLIGHT DATED SEPTEMBER 1982

COMPUTER NETWORK CORPORATION
 5185 MacArthur Boulevard, N.W.
 Washington, D.C. 20016
 (202) 537-2500

Lee E. Johnson, Chairman and
 President
 Public Corporation, OTC
 Total Employees: 151
 Total Revenue, Fiscal Year End
 3/31/83: \$14,483,000

COMPUTER NETWORK CORPORATION
FIVE-YEAR FINANCIAL SUMMARY
 (\$ thousands, except per share data)

ITEM	FISCAL YEAR		3/83	3/82	3/81	3/80	3/79
Revenue	\$ 14,483		\$ 12,812	\$ 19,277	\$ 21,242	\$ 21,005	
. Percent increase (decrease) from previous year	13%		(50%)	(9%)	1%		27%
Income (loss) before taxes	\$ 618		\$ 1,081	\$ (197)	\$ 1,231	\$ 2,064	
. Percent increase (decrease) from previous year	(43%)		69%	(116%)	(40%)		16%
Net income (loss)	\$ 377		\$ 517	\$ (103)	\$ 930	\$ 1,507	
. Percent increase (decrease) from previous year	(27%)		602%	(111%)	(38%)		15%
Earnings (loss) per share	\$ 0.19		\$ 0.30	\$ (0.09)	\$ 0.55	\$ 0.90	
. Percent increase (decrease) from previous year	(37%)		433%	(116%)	(39%)		(13%)

SOURCE OF REVENUE

- INPUT estimates 85% of Computer Network Corporation's fiscal 1983 revenue was derived from processing services (50% from remote computing and 50% from facilities management), 10% from applications software, and 5% from professional services.



COMPANY HIGHLIGHT

COMPUTER NETWORK CORPORATION
5185 MacArthur Boulevard, N.W.
Washington, DC 20016
(202) 537-2500

Lee E. Johnson, Chairman and
President
Public Corporation, OTC
Total Employees: 141
Total Revenue, Fiscal Year End
3/31/82: \$12,812,000

THE COMPANY

- Computer Network Corporation (COMNET) was founded in 1967 to provide remote computing services. The company expanded its services in 1976 to include facilities management and, in mid-1981, began marketing proprietary applications software.
- Fiscal 1982 revenue of \$12.8 million represented a 50% decrease from 1981 revenue of \$19.3 million. Net income increased 602% to \$517,000, from a net loss of \$103,000 in 1981. A five-year financial summary follows:

COMNET
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands, except per share data)

ITEM	FISCAL YEAR	3/82	3/81	3/80	3/79	3/78
Revenue		\$12,812	\$19,277	\$21,242	\$21,005	\$16,597
. Percent increase (decrease) from previous year		(50%)	(9%)	1%	27%	126%
Income (loss) before taxes and extraordinary item		\$ 1,081	\$ (197)	\$ 1,231	\$ 2,064	\$ 1,786
. Percent increase (decrease) from previous year		69%	(116%)	(40%)	16%	124%
Net income (loss)		\$ 517	\$ (103)	\$ 930	\$ 1,507	\$ 1,311
. Percent increase (decrease) from previous year		602%	(111%)	(38%)	15%	152%
Earnings (loss) per share		\$ 0.30	\$ (0.09)	\$ 0.55	\$ 0.90	\$ 1.04
. Percent increase (decrease) from previous year		433%	(116%)	(39%)	(13%)	136%

COMPUTER NETWORK CORPORATION

- Revenue has declined each year since fiscal 1980 as the level of work performed on a contract with the Environmental Protection Agency (EPA) phased down and was completed on February 28, 1981. This contract represented 3%, 50%, and 54% of total revenue in fiscal 1982, 1981, and 1980, respectively. Revenue from the EPA in fiscal 1982 is primarily the result of a \$197,000 negotiated settlement on COMNET's claim for fees on out-of-scope work performed under the expired contract.
- COMNET's profit recovery in 1982 can be attributed to several factors:
 - Operating expenses were reduced 34% from fiscal 1981 primarily as a result of the elimination of equipment and other expenses no longer necessary to support the EPA contract.
 - Fiscal 1982 was not burdened with nonrecurring charges amounting to almost \$500,000 in fiscal 1981.
 - COMNET changed its estimate of the useful lives and residual values of two computers, increasing depreciation expenses by \$200,000 per year.
 - Nonoperating income in fiscal 1982 was enhanced by a 60% increase in interest income.
 - A nonrecurring fee earned on the placement of equipment contributed over \$400,000.
- In fiscal 1981, COMNET acquired 223,424 shares of U.S. Design Corporation (USDC) for \$335,000. COMNET's holdings represented 8% of USDC's outstanding shares as of March 31, 1982.
 - COMNET holds options for an additional 599,637 shares of USDC stock at a price of \$2.25 per share, exercisable through July 1986. USDC, founded in 1978, manufactures data storage systems.
 - COMNET's fiscal 1982 earnings were reduced by \$100,000 as a result of its portion of equity losses in USDC. The losses are due primarily to a decision to phase out production and sale of the CSS-11 disk information storage system, and proceed with the development of a new generation system, the CSS-800.
- In July 1981, COMNET acquired the proprietary software products of National Mailware Systems, Inc. for \$286,000. The products have been enhanced and are now being licensed under the name COM-MAIL.
- In February 1982, COMNET acquired 375,000 shares, or 17.4% of Zytrex Corporation's common stock, for \$300,000.
 - Zytrex, located in Sunnyvale (CA), designs, develops, and manufactures large-scale memory and logic circuits.

COMPUTER NETWORK CORPORATION

- Zytrex, founded in March 1981, still in the development stage, has not yet generated revenue.
- In July 1982, the company purchased substantially all the assets and customer base of Data Systems Consulting Corporation for \$800,000 in cash and 226,963 shares of COMNET common stock.
 - Data Systems markets software products for the health care industry.
 - COMNET plans to operate Data Systems as a separate division within its newly formed Health Care Group, and integrate Data Systems' products into its timesharing network by 1983.
- Government contracts contributed approximately \$9.7 million of fiscal 1982 revenue. These will expire in fiscal 1983. COMNET is actively working with the respective agencies to extend these contracts.
- COMNET's major competitors are Boeing Computer Services, Martin Marietta Data Systems, and Optimum Systems, Inc. Other competitors include Computer Sciences Corporation, Control Data Corporation, GEISCO, National CSS, Inc., Planning Research Corporation, and Tymshare.

KEY PRODUCTS AND SERVICES

- The majority of COMNET's fiscal 1982 revenue was derived from processing services (50% remote computing and 50% facilities management). The remainder was derived from applications software and professional services.
- COMNET provides remote computing services to over 250 customers.
 - Three timesharing systems are available: WLYBUR, TSO, and COMNET's proprietary software, ALPHA.
 - . ALPHA permits "value added" use of WYLBUR and TSO and provides automatic file editing, remote job entry, and interactive processing.
 - As a result of the recent Data Systems acquisition, COMNET plans to expand its network offerings over the next year to include applications in the health care field. These are:
 - . Financial applications: billing, accounts payable, accounts receivable, general ledger, budgeting, and patient fund accounting.
 - . Special project systems: statistical analyses, fixed assets ledger, nursing home based doctors' billings, and rent billings for subsidized housing for the elderly.

COMPUTER NETWORK CORPORATION

- COMNET is evaluating additional acquisitions in the health care industry and intends to integrate multiple products and services through these acquisitions.
- A profile of COMNET's current network services offerings is outlined in the exhibit.
- COMNET has established a Customer Support Group, HELPER, to provide its users with technical assistance.
 - Users requiring assistance can contact HELPER by toll-free phone, low-speed terminal, walk-in visit, or by mail.
- COMNET has facilities management experience in large-scale mainframes and minicomputers. Currently COMNET has two facilities management contracts: HEW's Office of Education data center and the Department of Justice's data center.
- COMNET's software product offering is the COM-MAIL Management System, a direct mail management system that assists organizations with large volume mailings in sorting and managing mail to take advantage of U.S. Postal Service discounts.
 - First introduced in August 1981, COM-MAIL currently has over 50 users.
 - The system runs on IBM or plug-compatible mainframes under OS or DOS.
 - COM-MAIL is currently composed of six software packages which can be used individually or as an integrated system:
 - Carrier Route Sorting System (CR\$\$) codes and presorts mailing lists by carrier route and ZIP Code. It is priced at \$25,000.
 - List Conversion, priced at \$8,000, converts mailing lists from one format to another.
 - Duplicate Elimination ("Merge/Purge") identifies and eliminates duplicate name and address records within single or combined files. It is priced at \$14,000.
 - Generalized Selection performs multiple selection tasks, applies ZIP code demographic data, and matches and/or merges files and records. It is priced at \$13,000.
 - Label Print, priced at \$2,000, prints name and address mailing labels according to preset parameters.
 - Regular Presort, a ZIP Code presort, is priced at \$5,000.

COMPUTER NETWORK CORPORATION

EXHIBIT
COMNET
NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none">● OPERATING ENVIRONMENT<ul style="list-style-type: none">– IBM 370/158, MVS– NAS AS/6, MVS– NAS AS/5, MVS– NAS AS/5, MVT● PROGRAMMING LANGUAGES<ul style="list-style-type: none">– FORTRAN– COBOL– PASCAL– BASIC– APL– PL/I● DATA MANAGEMENT SOFTWARE<ul style="list-style-type: none">– MODEL 204– INQUIRE– SYSTEM 2000● STATISTICS<ul style="list-style-type: none">– SPSS– SAS– TPL– ESP– BMD/BMDP– SOUPAC– TSP– SSP– MATLAN– DATATEXT	<ul style="list-style-type: none">● MATHEMATICS<ul style="list-style-type: none">– MPSX● RETRIEVAL AND REPORTING<ul style="list-style-type: none">– EASYTRIEVE● GRAPHICS<ul style="list-style-type: none">– SAS/GRAFH– PLOT 10● OTHER<ul style="list-style-type: none">– PLANCODE– SCRIPT– ATMS III– TAPS– PMS IV– GPSS– SPREAD

COMPUTER NETWORK CORPORATION

- The entire COM-MAIL Management System can be purchased for \$55,000.
- All prices quoted are as of April 1, 1982, and cover the one-time perpetual license fee and one-year free maintenance.
- COM-MAIL customers include Avon Fashions, Commonwealth Edison of Chicago, Direct Mail Corporation of America, The Franklin Mint, Media Services, National Rifle Association, Federal Express, Time, Inc., Kentucky Utility, Dania Bank, and GEICO.
- Professional services are available to customers in such areas as:
 - Project management.
 - Applications design and development.
 - Data base management support.
 - Capacity planning and management.
 - Hardware evaluation and selection.
 - Data processing policy, procedures, and standards.
 - Network design and implementation.
 - Distributed data processing.
 - Contract programming.
 - Data conversion.

INDUSTRY MARKETS

- Eighty-eight percent of COMNET's fiscal 1982 revenue was derived from the federal government. The remaining 12% was derived from the commercial sector including consultants, banks, utilities, mailing houses, and publishers.
 - Commercial revenue is up from four percent reported in fiscal 1981.
 - Management anticipates that by the mid-1980s less than 50% of total revenue will come from the federal government.

GEOGRAPHIC MARKETS

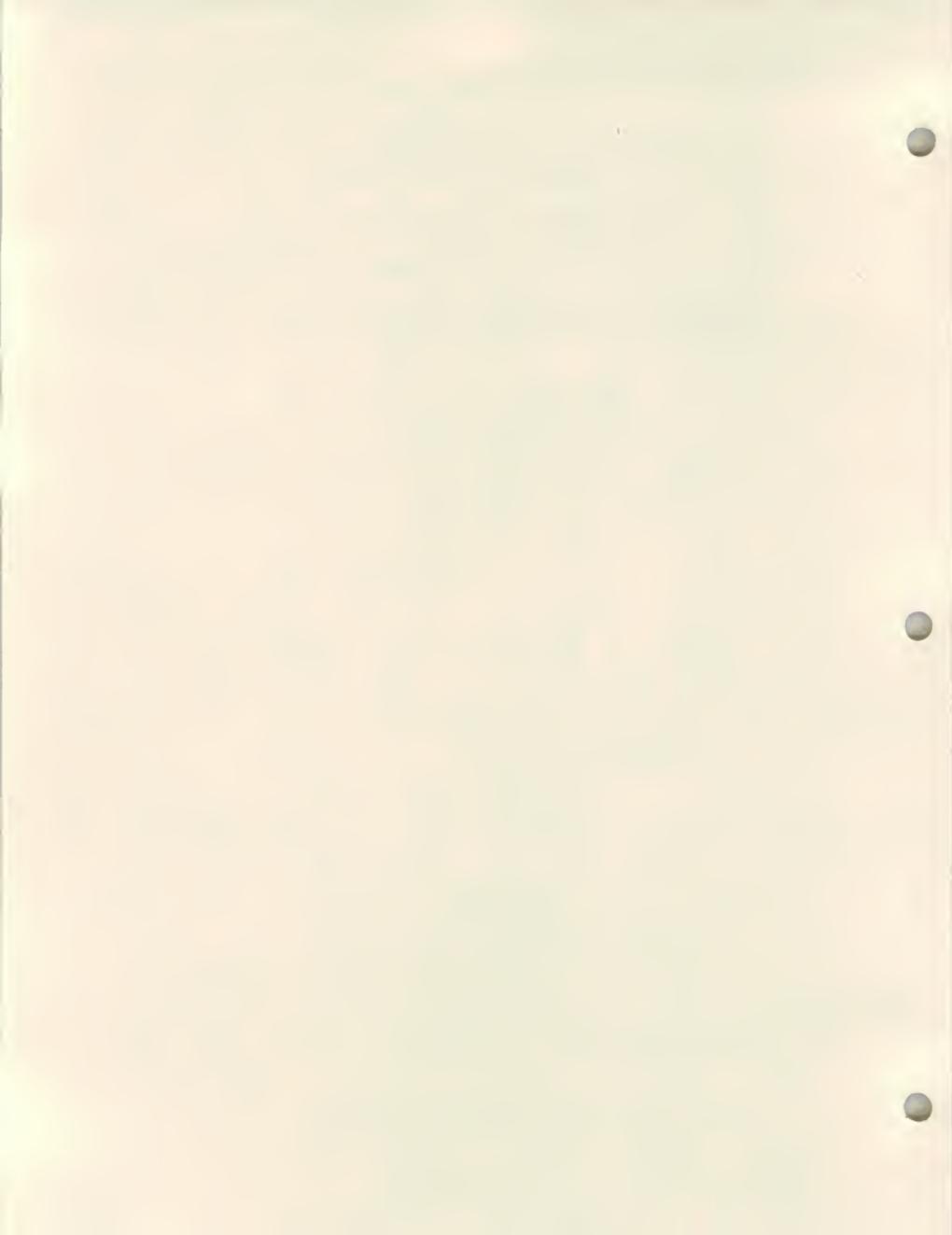
- The majority of COMNET's fiscal 1982 revenue comes from the South Atlantic and Northeastern regions, primarily Washington, D.C. Commercial clients are located throughout the continental U.S.

COMPUTER HARDWARE AND SOFTWARE

- COMNET has the following systems installed, running under OS/MVS:
 - 1 IBM 370/158.
 - 2 NAS AS/5s.
 - 1 NAS AS/6.
- Access to COMNET's network is accomplished via:

COMPUTER NETWORK CORPORATION

- Local, direct-dial within the Washington, D.C. area.
- Local dial to a concentrator in one of 225 network cities.
- Nationwide WATS service in areas without a concentrator.
- COMNET supports a wide range of low-, medium-, and high-speed terminals. 9600 baud service is also available on a leased-line basis.
- COMNET also offers impact and laser printing services.



COMPANY HIGHLIGHT

COMPUTER NETWORK CORPORATION
5185 MacArthur Boulevard, N.W.
Washington, DC 20016
(202) 537-2500

Lee E. Johnson, Chairman and President
Public Corporation, OTC
Total Employees: 222
Total Revenues Fiscal Year End
3/31/80: \$21,242,000

THE COMPANY

- Computer Network Corporation (COMNET) was founded as a Maryland corporation in 1967 to perform remote computing services. Processing services, both remote computing and facilities management (FM), continue to be its principal business.
- Revenues remained stable, rising only one percent from \$21 million in FY 1979 to \$21.2 million in FY 1980. Net income decreased 39%, from \$1.5 million in 1979 to \$0.9 million in 1980. A five-year financial summary follows:

COMNET
FIVE-YEAR FINANCIAL SUMMARY
(\$ Thousands, Except Per Share Data)
(FYE 3/31)

ITEM \ FISCAL YEAR	1980	1979	1978	1977	1976
Revenues	\$21,242	\$21,005	\$16,597	\$ 7,349	\$ 6,891
. Percent increase from previous year	1%	27%	126%	7%	-
Income before taxes and extraordinary item	\$ 1,231	\$ 2,064	\$1,786	\$ 797	\$ 1,508
. Percent increase (decrease) from previous year	(40%)	16%	124%	(47%)	-
Net income	\$ 889	\$ 1,462	\$1,243	\$ 494	\$ 1,216
. Percent increase (decrease) from previous year	(39%)	18%	152%	(59%)	-
Earnings per share	\$ 0.54	\$ 0.87	\$0.96	\$ 0.44	\$ 1.02
. Percent increase (decrease) from previous year	(38%)	(9%)	118%	(57%)	-

COMPANY HIGHLIGHT/COMPUTER NETWORK CORPORATION

- Increases in revenues and earnings in FY 1978 were primarily the result of major long-term federal government contracts with the Environmental Protection Agency (EPA) and the Department of Health, Education and Welfare - Office of Education (HEW-OE).
- COMNET's decline in net income in FY 1980 is attributed to increased marketing activity, the acquisition of additional computing capacity and the settlement of a contract dispute with the EPA.
- Revenues for the first quarter FY 1981 (ended June 30, 1980) decreased 14% to \$4.8 million, as compared with \$5.6 million a year earlier. A net loss of \$118,000 was reported as opposed to net earnings of \$290,000 in FY 1980.
- In FY 1979, the company divisionalized its operations for supervisory purposes. Each division is responsible for planning, program management and computer and communications operations for designated contracts. A separate sales division performs all marketing, sales and other similar functions.
 - The EPA division fulfills all facilities management requirements of the EPA contract under one management organization.
 - The Federal-Commercial Systems division is responsible for FM and remote computing services provided to all other clients.
- The loss of one or more of COMNET's major customers would have an adverse effect on the company's revenues. Government contracts, which contributed approximately 75% of FY 1980 revenues, will expire in FY 1981. COMNET is actively working to extend these contracts.
- In June 1980, COMNET signed an agreement with the U.S. Design Corporation (USDC) providing for the acquisition by COMNET of up to 25% ownership in USDC and specified exclusive rights to market USDC's product.
 - USDC offers a fully integrated table-top computer system based on a DEC LSI-11/23 microprocessor, which can be used in a timesharing environment. COMNET believes that the USDC system has potential for DDP applications, and intends to incorporate this technology into its network services.
- Computer Network announced the signing of a major FM contract with a federal government agency on July 1, 1980. COMNET anticipates first-year revenues of over \$1 million from the contract.
- COMNET's major competitors are Boeing Computer Services, Martin Marietta Data Systems and Optimum Systems, Inc. Other primary competitors include Computer Sciences Corporation, Control Data Corporation, GEISCO, National CSS, Inc., Planning Research Corporation and Tymshare, Inc.

COMPANY HIGHLIGHT/COMPUTER NETWORK CORPORATION

KEY PRODUCTS AND SERVICES

- Processing services revenues accounted for 100% of FY 1980 revenues, as shown below:

- Remote computing	20%
- Facilities management (FM)	<u>80</u>
	100%
- COMNET provides processing services to approximately 250 different customers. ALPHA, COMNET's remote computing service, contains over 300 applications in its program library. Major products in COMNET's network are:
 - The Information Retrieval System, which enables research scientists, educators and government program specialists to retrieve information from data banks related to environment, health, medicine and transportation. The system also provides litigation support to attorneys.
 - Modeling packages, such as SPSS, DATA-TEXT, BMD, TPL, SOUPAC and SAS.
 - Data base management systems: CICS, SYSTEM 2000, TOTAL, INQUIRE, MODEL 204, EASYTRIEVE and IMS.
 - ALPHA has recently been supplemented with TSO and WYLBUR.
- FM contracts require the placement of COMNET personnel at the user site and, in some cases, dedicated hardware. COMNET's two FM contracts with the EPA and HEW-OE accounted for approximately \$17 million of FY 1980 revenues.
 - The EPA contract is valued at \$40 million over four years. Awarded in November 1976, the contract expires in December 1980. A dedicated facility using an IBM 370/168 is required.
 - COMNET'S FM contract with HEW-OE, awarded in April 1977, is valued at \$9 million over 3 years.

INDUSTRY MARKETS

- Thirteen departments and agencies of the federal government accounted for approximately 90% of FY 1980 revenues. Commercial and financial institutions accounted for the remaining 10%.
 - COMNET has experienced a steady increase in federal government business. From an estimated 41% of total revenues in FY 1975, government revenues now provide the majority. The company does not expect any significant change in its client base.

COMPANY HIGHLIGHT/COMPUTER NETWORK CORPORATION

GEOGRAPHIC MARKETS

- The majority of COMNET's revenues for FY 1980 came from the South Atlantic and Northeastern regions, primarily Washington, D.C. Individual users within government and private industry are also located throughout the continental U.S.

COMPUTER HARDWARE

- COMNET leases the following hardware. All systems run under OS/MVS.
 - One IBM 370/168
 - One IBM 370/158.
 - One IBM 3032.
 - One Itel AS/6.
 - Two Itel AS/5s.
- Several COMNET communications front-end processors are used to interface the CPUs with a nationwide network.
 - Leased telephone lines link over 90 U.S. cities. COMNET's network is capable of servicing up to 700 users simultaneously.

COMPANY COMNET
 FY 3/31

FISCAL YEAR	ANNUAL REVENUE (\$millions)	ANNUAL GROWTH RATE (%)	COMMENTS	
1971	<u>2</u>	<u>50</u>		
1972	<u>3</u>	<u>0</u>		
1973	<u>3</u>	<u>33</u>		
1974	<u>4</u>	<u>0</u>		
1975	<u>4</u>	<u>75</u>		
1976	<u>7</u>	<u>0</u>		
1977	<u>7</u>		SEVERAL LARGE GOVERNMENT AWARDS.	
		<table border="1"><tr><td>26 %</td></tr></table>	26 %	Previous years Average
26 %				
1978	<u>16</u>	<u>128 %</u>	1977-1978	
		<table border="1"><tr><td>25 %</td></tr></table>	25 %	Max Rate Projected Min Rate Projected
25 %				
1979	Max Revenue <u>\$20 M</u>	Min Revenue	Avg. Revenue	
1980	<u>25</u>			
1981	<u>31</u>			
1982	<u>39</u>			
1983	<u>50</u>			



*Richard May
VP, Corporate Development*

COMPANY HIGHLIGHT

COMPUTER NETWORK CORPORATION
5185 MacArthur Boulevard, N.W.
Washington, DC 20016
(202) 537-2500

Lee E. Johnson, President and
Chairman of the Board
Public corporation, OTC
Total employees: 200
Total revenues fiscal year end
3/31/78: \$16,597,000

THE COMPANY

- Computer Network Corporation (COMNET) was founded as a Maryland corporation in 1967 to perform remote computing services. Processing services, both remote computing and facilities management, continue to be its principal business.
- Revenues have grown approximately 126% from \$7.4 million in fiscal 1977 to \$16.6 million in fiscal 1978. This spectacular growth has primarily resulted from newly acquired facilities management contracts with the Federal government.
 - Based on financial results reported for the first quarter, fiscal 1979 revenues are expected to exceed \$18 million, a 13% increase over fiscal 1978.
 - A five-year financial summary of COMNET is shown in the table below:

Five Year Financial Summary, COMNET
(\$ Thousand, Except Per Share Data)

Item	Fiscal Year	1978	1977	1976	1975	1974
Revenues	\$16,597	\$7,349	\$6,891	\$3,822	\$3,842	
Income before taxes and extraordinary items	1,786	797	1,508	(367)	363	
Net income	1,243	494	1,216	(570)	126	
Earnings per common share (fully diluted)	0.96	0.44	1.02	(0.46)	0.14	

August 1978

COMPANY HIGHLIGHT/COMPUTER NETWORK CORPORATION

- The approximately 200 employees are distributed as follows:

Marketing/sales	5%
Software services/customer support (includes systems programming)	25
Computer operations	60
General and administrative	10
	<u>10</u>
	100%

KEY PRODUCTS AND SERVICES

- Processing services revenues accounted for 100% of fiscal 1978 revenues as shown below:
 - Remote computing 55%
 - Facilities management (FM) 45
 -
 - 100%
- COMNET provides processing services to approximately 250 different customers, about 4,000 individual users. ALPHA, COMNET's remote computing service, provides over 300 applications from the program library to users. It includes:
 - The Information Retrieval System. This enables research scientists, educators, and government program management specialists to retrieve information from data banks related to environment, health, medicine, and transportation. The system also provides litigation support to attorneys.
 - Modeling packages, such as SPSS, DATA-TEXT, BMD, TPL, SOUPAC, and SAS. These are used for long range planning.
 - . Process manufacturers use these for predicting the effect of making changes in selected subprocesses.
 - . Radio and television survey data are processed and reported to aid in determining the size of grants given annually to various stations.
 - . Data on hazardous materials and authorized carriers are stored and analyzed so that permits can be produced and issued easily and accurately to insure the safety of the carriers and the public.
 - Data base management systems. These include CICS, SYSTEM 2000, TOTAL, INQUIRE, MODEL 204, EASYTRIEVE, and IMS.

COMPANY HIGHLIGHT/COMPUTER NETWORK CORPORATION

- Remote computing FM contracts call for COMNET personnel at the user site, and in some cases, dedicated hardware. FM, generating an aggregated \$40 million in revenues over a three to four year period, includes contracts with:
 - Environmental Protection Agency, valued at \$40 million over four years. It was awarded in November 1976. A dedicated IBM 370/168 is required.
 - Department of Health, Education and Welfare, Office of Education, valued at \$9 million over three years. It was awarded in April 1977.
 - Department of the Navy, Bureau of Personnel, valued at \$4.5 million over three years. It was awarded in August 1976.
 - General Services Administration Teleprocessing Services Program, awarded in November 1976. COMNET was the first vendor to be awarded a contract under this program, which permits governmental agencies across the country to obtain processing services directly from private industry.
 - MCI Telecommunications Corp., valued at \$3 million over a three year period. COMNET's first FM contract with private industry, it was awarded in May 1977.

APPLICATIONS General business applications generated 80% of processing services revenues for fiscal 1978, and scientific applications accounted for 20%.

INDUSTRY MARKETS The Federal Government accounted for approximately 70% of fiscal 1978 revenues. The remaining 30% were distributed.

GEOGRAPHIC MARKETS All of COMNET's revenues for fiscal 1978 came from the South Atlantic and Northeastern regions, primarily Washington, D.C. However, individual users within government and private industry are located throughout the continental U.S.

COMPUTER HARDWARE AND SOFTWARE

- The following CPUs all run under OS/MVT Release 21.8 and are used to provide processing services:
 - One IBM 370/168
 - One IBM 370/158
 - One IBM 360/65
 - One IBM 30/32 (to be installed during August or September 1978)
 - One Itel AS6
 - Two Itel AS5

COMPANY HIGHLIGHT/COMPUTER NETWORK CORPORATION

- Several Comten communications front-end processors are used to interface the CPUs with a nationwide network.
- Management reports that COMNET is the only IBM-based service bureau which had designed and developed its own interactive remote computing systems software (ALPHA).

Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

April 1996

Computer Outsourcing Services, Inc.

President & CEO: Zach Lonstein
360 West 31st Street
New York, NY 10001
Phone: (212) 564-3730
Fax: (212) 947-7458



Status:	Public
Employees:	449 (11/95)
Revenue:	\$22,151,734
Fiscal Year End:	10/31/95

Key Points

- Computer Outsourcing Services, Inc. (COSI) provides outsourcing solutions for payroll, tax filing, and information processing applications to approximately 3,200 clients nationwide.
- The company claims to be the fourth largest publicly traded payroll processing and tax filing company in the U.S.
- Since its initial public offering in January 1993, COSI has completed three acquisitions directed at increasing the company's presence in the payroll

processing and information services markets.

- During 1995, COSI acquired MCC Corporation, expanding the company's outsourcing operations into the banking and transportation industries and immediately adding approximately \$8 million in annual revenue.

Company Description

COSI, founded in 1984, provides payroll and tax filing processing services and information outsourcing services to companies in niche markets, including publishing, direct marketing, apparel importing and manufacturing, and health care.

Organization and Structure

During fiscal 1995, COSI continued the ongoing process of consolidating all of its operations into two divisions.

- The payroll companies are being standardized onto one processing system and the outsourcing companies' computer operations are in the process of being consolidated.
- Until the integration of all the operations is completed, the company will continue to experience higher costs due to the conversion efforts and duplication of facilities and personnel.
- These activities negatively impacted profitability in fiscal 1995.

COSI currently operates through two units as follows:

- The PayUSA division provides payroll processing and associated services through the following subsidiaries:
 - Daton-PayUSA, Inc., based in Santa Ana (CA), services Southern California.
 - Key-ACA, Inc., based in Westwood (MA), services the New England area.
 - NEDS, Inc., based in Cranston (RI), also services the New England area.
 - PayUSA of NJ, Inc., based in New York, services Greater New York.
- COSI's outsourcing business is conducted through the following units:
 - The PCS Data Processing division, based in New York, provides processing to the book publishing industry.

- MCC Corporation, based in Murray Hill (NJ), is a wholly owned subsidiary providing outsourcing services to the transportation, banking, and publishing industries.

- Tru-Check Computer Systems, Inc., based in New York, is a wholly owned subsidiary that provides sales data collection and reporting services to consumer goods manufacturers.
- The ESM division, based in New York, provides payroll services to home health care companies.

Company Strategy

COSI's strategy is to provide a comprehensive computer outsourcing alternative for all or part of its clients' data processing requirements.

COSI's strategy includes the following elements:

- COSI management believes that payroll processing services represent the area with the highest potential for future growth.
- COSI stresses close attention to customer service and support. As a result, the company's client relationships tend to be long-term with very low turnover, generating recurring and predictable revenue. COSI has approximately 27% of its entire staff dedicated to customer support and sales.
- COSI attempts to maximize the use of its products and services by offering a range of services to each client. Products are designed to work either on a standalone, modular basis or as fully integrated systems. Clients can expand their use of COSI services by adding modules as needs dictate. In addition, clients can increase or

decrease the volume of services provided by adjusting the number of on-line terminals installed in their offices.

COSI intends to standardize its entire payroll processing system to the client/server-based system acquired in June 1994 with Daton Data Processing Services, Inc.

- COSI expects to complete Rhode Island conversions during calendar 1996 and make significant progress in Boston and New York.

For fiscal 1996, COSI intends to enlarge its market share in the payroll processing and specialty segments of the outsourcing industry, primarily through internal growth.

Financials

COSI's fiscal 1995 revenue reached nearly \$22.2 million, a 40% increase over fiscal 1994 revenue of \$15.9 million. Net losses were approximately \$0.6 million, compared to net income of \$0.5 million for fiscal 1994.

A five-year financial summary follows:

Computer Outsourcing Services, Inc.
Five-Year Financial Summary
(\$ Thousands, except per share data)

Item	Fiscal Year				
	10/95	10/94	10/93	10/92	10/91
Revenue	\$22,152	\$15,872	\$11,399	\$10,008	\$10,057
• Percent change from previous year	40%	39%	14%	--	18%
Income (loss) before taxes	\$950)	\$906	\$1,070	N/A	N/A
• Percent change from previous year	205%	(15%)	N/A	N/A	N/A
Net income (loss)	\$636)	\$501	\$656	\$497	\$310
• Percent change from previous year	(227%)	(24%)	(a) 32%	60%	(6%)
Earnings (loss) per share	\$(0.19)	\$0.13	\$0.24	\$0.24	\$0.14
• Percent change from previous year	(246%)	46%	(a) --	71%	(18%)

(a) Includes a gain of \$54,415 (\$0.04 per share) from the cumulative effect of a change in accounting.

Revenue increases during fiscal 1995 were due primarily to acquisitions in the prior and current fiscal years.

- Tru-Check, acquired in January 1994, contributed \$117,000 to the increase.
- Daton, acquired in June 1994, contributed \$1.8 million to the increase.

- Certain acquired payroll operations from Delta Management Systems, Inc. in August 1994 contributed \$284,000 to the increase.

- Key-ACA, acquired in May 1995, contributed \$1.2 million to the increase.

MCC, acquired in June 1995, contributed \$3.4 million to the increase.

These increases were partially offset by a decrease of \$188,000 in payroll processing revenue from NEDS, Inc. and decreases of \$419,000 from infomercial, apparel and other outsourcing revenue.

As previously discussed, COSI's profitability was negatively impacted during fiscal 1995 by the ongoing process of consolidating the operations of acquired companies and standardizing the entire payroll processing business to client/server technology.

Revenue Analysis by Product/Service

INPUT estimates that approximately 62% of COSI's fiscal 1995 revenue was derived from processing services and 38% from outsourcing services. COSI's fiscal 1995 revenue was segmented as follows:

Processing Services

- Payroll processing	32%
- Sales data collection and reporting	9%
- Payroll services/home health care industry	4%
- Other processing	<u>17%</u>
	62%

Outsourcing Services

- Apparel importing and manufacturing industry	9%
- Book publishing industry	13%
- Specialty services	<u>16%</u>
	38%

Interim Results

Revenue for the three months ending January 31, 1996 reached \$7.1 million, a 62% increase over \$4.4 million for the same period in 1995. Net income was \$46,022, compared to \$53,539 for the same period a year ago.

- Key-ACA contributed \$666,000 to the revenue increase and MCC contributed \$2.1

million. In addition, a \$232,000 increase in payroll processing revenue was recorded by Daton and Delta.

- These increases were offset by decreases of \$50,000, \$108,000 and \$83,000 at COSI, NEDS, and Tru-Check, respectively.

Market Financials

COSI derives its revenue primarily from clients in the publishing, direct marketing, apparel importing and manufacturing, and health care industries.

Geographic Markets

One hundred percent of COSI's revenue is derived from the U.S.

Clients are located primarily in the greater New York, northern New Jersey, New England and southern California regions.

Acquisitions

Acquisitions made by COSI during 1995 and 1994 are summarized below.

In May 1995, COSI acquired MCC Corporation for approximately \$1.2 million in cash and stock. The acquisition was accounted for as a purchase.

- MCC, based in Murray Hill (NJ), provides specialty outsourcing services to the banking, transportation and other industries. MCC has extensive mainframe and communications operations throughout North America.
- MCC now operates as a wholly owned subsidiary of COSI.

In May 1995, COSI acquired Key-ACA, Inc. of Westwood (MA) for \$625,000 in cash, 113,636 shares of COSI common stock, plus contingent payments based on future performance. The acquisition was accounted for as a purchase.

- Key-ACA provides payroll processing services to customers in New England.
- Key-ACA operates as a wholly owned subsidiary of COSI.

In August 1994, COSI formed PayUSA of NJ, Inc. to acquire certain assets of the payroll processing division of Delta Management Systems, Inc. for \$100,000 and contingent payments based on future performance. The acquisition was accounted for as a purchase.

In June 1994, COSI acquired Daton PayUSA, Inc. (formerly Daton Data Processing Services, Inc.) for 300,000 shares of COSI common stock plus contingent payments based on future performance. The acquisition was accounted for as a purchase.

- Daton, based in Santa Ana (CA), provides payroll processing services primarily to customers in southern California.
- The acquisition brought COSI additional management expertise in the areas of payroll marketing, sales, and systems development, as well as payroll processing technology based on client/server software from Novell and Hewlett-Packard RISC-based computers.
- Daton also offers a proprietary tax filing product that can process taxes in all 50 states.
- Daton now operates as a wholly owned subsidiary of COSI.

In January 1994, COSI acquired Tru-Check Computer Systems, Inc. for 111,000 shares of COSI common stock, \$579,322 in cash, and contingent payments based on future performance. The acquisition was accounted for as a purchase. Tru-Check provides

marketing information for consumer goods manufacturers.

Employees

As of October 31, 1995, COSI had 418 full-time and 31 part-time employees, segmented as follows:

Customer support and sales	121
Sales and marketing support.....	20
Systems analysts and programmers	43
Computer operators	29
Tape librarians	3
Data entry personnel	114
Shipping, messenger, mailroom and custodial services	44
Administrative	40
Executives and managers	35
	449

Key Products and Services

COSI provides a range of processing and outsourcing services, as summarized below.

Payroll Services

COSI provides payroll processing services, including payroll tax filing, through its PayUSA division (including Daton PayUSA, NEDS, Key-ACA and PayUSA of NJ).

- There are approximately 2,600 clients of all sizes, in a range of businesses with employees in all 50 states.
- The largest payroll customers include a national leasing company and a Fortune 500 consumer products company.

Payroll services include the preparation and finishing of employee paychecks and direct deposit payments, supporting journals, and other reports.

- COSI supplies each client with all quarterly and annual Social Security and federal,

state and local withholding and employer tax reports to be filed by clients, W-2 statements for employees, records for each pay period, and quarterly historical earnings records for each employee.

- COSI also prepares statistical and audit reports, such as payroll and job cost distribution reports, welfare and pension fund reports, and a payroll audit report.
- COSI provides automated tax collection and file services on behalf of clients, processing federal, state, and local payroll withholding and employer taxes, and remitting payments to the appropriate tax authorities when due.
- Direct deposit services are also performed where clients' employees authorize the service.

Outsourcing—Apparel Importing and Manufacturing Industries

COSI provides processing services to soft goods importers and manufacturers in support of accounting, billing, production data and other information applications. Clients can outsource part or all of their data processing requirements.

COSI has also developed an electronic data interchange subsystem that allows a vendor to receive orders and floor selling information from a retailer electronically and transmit invoices back to the retailer electronically.

Outsourcing—Book Publishing Industry

COSI provides processing services to the book publishing industry through its PCS Data Processing division. COSI currently services 30 large and small publishers, ranging from a one-terminal user to large users with more than 100 terminals dedicated to the system.

COSI functions as the computer department for the publishing client, offering a range of functions, such as on-line order entry, order processing, inventory, accounts receivable and payable, sales history and analysis, general ledger, and royalty computation and recordkeeping.

Services include the preparation of daily, weekly, and monthly reports pertaining to the particular applications desired by the client.

Although some clients use only royalty processing, most subscribe to the full on-line publishing system.

Outsourcing—Specialty Services

Through MCC Corporation, COSI provides customized outsourcing services to companies in the transportation, banking, and publishing industries. In these cases, COSI provides all of the computer and telecommunications services required by the customer for a specific application or set of applications.

Sales Data Collection and Reporting

COSI provides sales data collection and reporting services to manufacturers of consumer goods through Tru-Check Computer Systems. Information regarding sales of snack foods and other vended items is collected from wholesale distributors, primarily in magnetic computer-readable files. COSI then provides these manufacturers with customized sales and rebate payment reports.

Processing—Home Health Care Industry

COSI provides specialized services to organizations that provide temporary help workers to industry and health care workers to homebound patients. COSI's EMS division collects payroll data, prepares paychecks for the service providers, and invoices the service recipients, or their third-party carrier. This

division now services approximately 25 home health care companies.

Other Services

COSI also provides a range of customized processing services designed to meet specific customer requirements, such as ticket analysis provided for a major international airline.

COSI also employs more than 114 key-entry operators to provide data entry and analysis services in connection with specific client projects. Data entry and analysis clients include the City of New York, a savings bank, a large insurance company, and a major university.

Customer Support and Training

The company generally installs its own custom-configured computer terminals, printers and communication equipment in its clients' offices. These on-line systems are linked by leased digital or analog data circuits.

COSI assigns a service representative to each customer to supervise installation and to provide on-site training and continuing support. Upon installation, COSI provides initial training at the client's business location and user manuals. To maintain client proficiency, COSI offers refresher training periodically, according to customer needs.

Support is available at the customer site, or by telephone during business hours for system-related questions and general problem solving. Because many clients' terminals are on-line with COSI computers, support personnel are able to communicate directly with them to diagnose errors, solve problems from software and hardware and make software upgrades at any time.

Data Centers

COSI's New York computer center uses one Hitachi 8063 and 2 IBM 4381 mainframes.

The Murray Hill (NJ) computer center houses one IBM 3090 and one IBM 4381 computer.

Marketing and Sales

COSI uses a direct sales marketing approach in which its sales representatives solicit client appointments and make sales calls. Initial contact is made by a variety of methods, including mailings, telemarketing, and attendance at industry conventions and trade shows.

COSI targets its principal marketing efforts primarily to:

- Companies currently using outsourcing or payroll services in COSI's market areas of greater New York, northern New Jersey, New England and southern California
- Companies in industries such as book publishing, apparel, and transportation, where COSI already has a presence

Competition

Payroll processing competitors include Automatic Data Processing, Inc., Paychex and Ceridian Employer Services.

Outsourcing competitors include Computer Sciences Corporation, Electronic Data Systems, IBM ISSC and Perot Systems.

Assessment

COSI's strengths include:

- Multi-industry experience
- High focus on customer service

- In-depth experience in payroll processing, information outsourcing, and telecommunications

Challenges over the coming year include:

- Successfully integrating operations from acquired companies
- Migrating payroll processing services to client/server technology

COMPANY PROFILE

COMPUTER PARTNERS, INC.
One University Office Park
Waltham, MA 02254
(617) 647-0116

Paul Crowley, Chairman and CEO
Paul Linscott, President
Private Corporation
Total Employees: 295
Total Revenue, Fiscal Year End
6/30/86: \$20,000,000*

THE COMPANY

- Computer Partners, Inc., founded in 1977, provides professional services, including custom programming, systems consulting, and education and training, to all industries. The company recently began marketing systems and application software packages for the IBM environment.
- INPUT estimates fiscal 1986 revenue reached \$20 million.
- As of June 1986, Computer Partners had 295 employees, segmented as follows:

Marketing and sales	21
Consulting services/customer support	258
Research and development	6
General and administrative	<u>10</u>
	295

- Competitors include Arthur Andersen, Price Waterhouse, Touche-Ross, and Arthur Young.

KEY PRODUCTS AND SERVICES

- Ninety-seven percent of fiscal 1986 revenue was derived from professional services and 3% from software products. Approximately 65% of professional services revenue was derived from software development, 30% from systems consulting, and 5% from education and training.
- Computer Partners' professional services include systems consulting, custom programming, and education and training. The company provides the following professional services:
 - Management Advisory Services (MAS).
 - Evaluate clients' information systems objectives.

*INPUT estimate

COMPUTER PARTNERS, INC.

- Participate with senior management in goal setting and project definition.
- Business Systems Planning, Office Automation Planning.
 - Hardware.
 - Software.
 - Data base selection studies.
 - Fourth generation language evaluation.
 - Software package evaluation.
- Design and Implementation of Business Computer Systems.
 - Design includes:
 - Design and specifications of systems--Computer Partners takes a modular design approach in order to develop flexible systems.
 - Custom programming.
 - Coordination of data processing functions with day-to-day operations.
 - Implementation includes:
 - Acceptance testing.
 - Training in documentation and operational procedures.
 - Training in maintenance of standards to protect client's investment.
- Education and Training (10 Courses).
 - Courses are available for design and programming, including IMS and DL/I data base programming, IMS data base design, IMS data communications programming, CICS command-level programming, and event-driven program design.
- Projects performed by Computer Partners include the following:
 - The development and installation of an on-line Sales Audit System for the Jordan Marsh division of Allied Stores.

COMPUTER PARTNERS, INC.

- Support for the design and implementation of an Order Entry System for Raytheon.
- The design of a new Shipping and Tracking System for Westinghouse.
- The design and implementation of an on-line Dental Claims Processing System for New England Life.
- The development of a five-year Business Systems Plan for the Amphenol Division of Bunker Ramo.
- The design and implementation of a Building Department Inspection System for the City of Boston.
- Business Systems Definition in the Order Entry area for DEC.
- Consulting and design of Order Entry and Sales Administration Systems for Wang Laboratories.
- The following systems and application software products are marketed by Computer Partners for the IBM mainframe environment:
 - In 1984 an order processing program was introduced for the CICS/DOS environment. The program sells for \$150,000. There are two installations of the product.
 - In the third quarter of 1985 the company introduced Partners Charge-back System, a chargeback system for pharmaceutical companies and hospital supply companies that runs under CICS/MVS. The system sells for \$80,000. There are three installations.
 - CICS Partner, recently introduced, is an application development system for the CICS environment. The system sells for \$16,000.
 - Computer Partners also recently introduced Partners' Safety System, a system that instructs employees on safety procedures to follow when working with dangerous substances. The system sells for \$20,000.
 - Later in 1986, Computer Partners expects to introduce a system that consolidates income statements for holding companies. The system will run under CICS/MVS and sell for \$60,000.
- Computer Partners recently began marketing two IBM PC systems software products for MIS managers as follows:
 - Project Partner, a project management system, sells for \$249.
 - Performance Partner, an application performance evaluation tool, sells for \$249.

COMPUTER PARTNERS, INC.

- In the two months since product introduction, there have been 10 installations of these two systems.

INDUSTRY MARKETS

- Computer Partners' 1986 revenue was derived from all industries. A breakdown of revenue by industry is provided below:

Manufacturing	18
Utilities	14
Financial	32
Insurance	3
Medical	6
Retail distribution	6
Wholesale distribution	9
Government	2
Services	7
Education	2
Petrochemical	1
	100%

- Customers include Polaroid, DEC, Wang, New England Life, New England Telephone, Colgate, Raytheon, Norton, State of Illinois, McDonald's, Continental Can, International Harvester, Standard Oil, Motorola, Allstate, Ciba Geigy, Prentice-Hall, SEI, Blue Cross of Delaware, and AT&T Technologies.

GEOGRAPHIC MARKETS

- One hundred percent of Computer Partners' fiscal 1986 revenue was derived from the U.S.
- Computer Partners has its highest concentration of customers in the Northeastern part of the U.S. Sales are expanding, however, and the company currently has customers in Wisconsin and North Dakota.
- Computer Partners is headquartered in Waltham (MA) and has branch offices located in Oakbrook (IL), Valley Stream (PA), Roseland (NJ), Wellesley Hills (MA), and New York City.

HARDWARE INSTALLED

- Computer Partners has approximately 35 IBM PCs and compatibles installed at its various locations.

COMPANY PROFILE

COMPUTER POWER GROUP

1500 Broadway
New York, NY 10036
Phone: (212) 575-2225
Fax: (212) 382-0878

Roger Allen, Chairman
E. Ted Prince, President
Public Corporation, Sydney Stock Exchange
Total Employees: 2,100
Total Revenue, Fiscal Year End
9/30/91: \$250,000,000*
U.S. Revenue: \$75,000,000*

*All dollar figures are U.S.

The Company

The Computer Power Group was founded in 1971 in Melbourne (Australia) and in 1984 began providing products and services in the U.S.

- Since 1986, acquisitions have rapidly accelerated the growth of the company, which now consists of the operations of the former CAP Information Systems Incorporated, Cornell Computer Corporation, Applied Information Development Incorporated, and CP International units, together with numerous subsidiaries.
- Computer Power Group currently provides a range of computer consulting services and several packaged software products to government and Fortune 5000 companies nationwide. The group also has significant operations in Australasia, Asia, and Europe.

The company's strategy is to provide professional services using its Technologies for the Delivery of Software and Services (TDSS), a combination of skills, methodologies, and tools that forms the foundation of all Computer Power Group services.

Total fiscal 1991 revenue reached \$250 million, a 10% increase over fiscal 1990 revenue of \$228 million. In the five-year summary that follows, financials are shown in U.S. dollars, using a consistent exchange rate from foreign currencies:

**COMPUTER POWER GROUP
FIVE-YEAR REVENUE SUMMARY
(\$ millions, U.S.)**

ITEM	FISCAL YEAR				
	9/91	9/90	9/89	9/88	9/87
Total revenue	\$250.0	\$228.0	\$262.0	\$237.0	\$24.0
· Percent increase (decrease) from previous year	10%	(13%)	10%	887%	--

Computer Power Group management attributes the company's growth in fiscal 1991 to an expansion in the range of services provided.

Of Computer Power Group's 2,100 employees, approximately 900 are located in the U.S.

Major competitors include Andersen Consulting, Computer Sciences Corporation, American Management Systems, and Electronic Data Systems.

Key Products and Services

Computer Power Group's fiscal 1991 revenue was derived approximately as follows:

Software consulting	78%
Systems integration	13%
Packaged software	6%
Training	3%
	100%

Computer Power Group's professional consulting services are provided within the company's TDSS framework to ensure optimum quality and performance. Services are rendered on a time-and-materials or fixed-price basis and include:

- Long-term strategic IS planning
- Systems integration
- Education and training
- Software maintenance services
- Software testing and implementation
- Network operations and management
- Project management
- Quality assurance and risk analysis

Systems integration services include serving as prime contractor in support of:

- Project planning
- Project management
- Hardware, software, and services selection
- CASE strategy development
- Staffing
- Quality assurance
- Testing

Recent professional services/systems integration projects include:

- A materials supply and management system for a federal government agency
- A management study for a courts system for an overseas government
- A software metrics engagement for a local government authority
- A software maintenance and CASE tool assessment for a retail store chain

Computer Power Group's packaged software offerings include the following:

- Status/IQ, a text storage and retrieval system
- Essence, a document abstractor
- Statute, a knowledge-based artificial intelligence system generator
- TODAY, a fourth-generation language application generator (which includes a range of specific applications)

Computer Power Group has a number of alliances/agreements on an international and/or local basis with various other suppliers and academic institutions. These include Hewlett-Packard, IBM, Microsoft, Stanford Research Institute, Texas Instruments, Wang and a number of specialized software product vendors.

Industry Markets

Computer Power Group does business with all sectors of the computing market, with significant contributions estimated as coming from:

Federal, state, and local government	25%
Telecommunications	20%
Banking and finance	20%
Business services	8%
Insurance	6%
Manufacturing	6%
Utilities	4%
All other	<u>11%</u>
	100%

The company provides services to more than 200 Fortune 1000, or equivalent, clients.

Geographic Markets

Computer Power Group's fiscal 1991 revenue was derived approximately as follows:

North America	30%
Australasia	42%
Europe	25%
Asia	<u>3%</u>
	100%

The U.S headquarters is in New York City, with other offices located in Milwaukee (WI), Cincinnati (OH), Edison (NJ), Fort Lauderdale (FL), Houston (TX), Indianapolis (IN), Irvine and San Francisco (CA), Minneapolis (MN), Plainview (NY), Oak Brook (IL), Phoenix (AZ), Seattle and Spokane (WA), and St. Louis (MO), with subsidiary offices in a number of other locations.

International headquarters is in Melbourne (Australia). Other international offices are in England, Hong Kong, Japan, New Zealand, Singapore, Taiwan, and Thailand.

COMPANY HIGHLIGHT

COMPUTER POWER, INC.
661 Riverside Avenue
Jacksonville, FL 32204
(904) 358-1424

David M. Hicks, President
Subsidiary of Chase Manhattan
Bank
Total Employees: 155
Total Revenue, Fiscal Year
End 12/31/81: \$21,700,000
Non-Captive Revenues: \$21,200,000

THE COMPANY

- Computer Power, Inc. (CPI), incorporated in 1969, provides processing services and software products to commercial banks, mortgage bankers, savings and loan associations, and mutual savings banks.
- CPI was acquired by Chase Manhattan Bank in October 1979 for \$20 million.
- Revenue in 1981 showed a gain of 36% over 1980 and income before taxes increased 39%. 1981 pretax profits were 16% versus 14% in 1980.

CPI
FIVE-YEAR FINANCIAL SUMMARY
(\$ thousands)

ITEM	FISCAL YEAR				
	1981	1980	1979	1978	1977
Total revenue	\$21,700	\$16,000	\$10,800	\$ 8,000	\$ 6,000
• Percent increase from previous year	36%	48%	35%	33%	25%
Income before taxes	\$ 4,300	\$ 3,100	\$ 1,900	\$ 1,600	\$ 700
• Percent increase from previous year	39%	63%	19%	129%	22%

- Competitors of CPI are American Automated, Data Communications Corporation, and Data Link.

KEY PRODUCTS AND SERVICES

- Processing services account for 70% of CPI's revenues, software products 15%, and professional services 15%. Captive revenues were about 1% in 1981.

COMPUTER POWER, INC.

- Four major software products are offered on CPI's processing service. All were developed by the company and are also sold separately as software products.
 - Mortgage Servicing consists of as many as 2,000 modules and provides the following features:
 - . Loan administrative management, including portfolio analysis.
 - . Investor accounting: cashiering, investor reporting, new loan setup and loan transfers.
 - . Customer services: escrow analysis, hazard insurance, property taxes, MIP/PMI, HUD #235s, payoffs and assumptions, and A&H/life insurance.
 - . Collections and foreclosures.
 - . Adjustable rate mortgage.
 - Construction Loan Management provides:
 - . Interest rates with multiple prime rate.
 - . Complete accounting: cash receipts, cash disbursements, adjustments, individual loan ledgers, borrowers' statements, and trial balances.
 - . Projections of cash flow, portfolio earnings, and loan yields.
 - . Management information and status reports.
 - Residential Loan Inventory Control provides:
 - . Loan origination volume and profitability.
 - . Inventory control: tracks pipeline loans from application date to closing.
 - . Marketing control: maintains individual loan ledgers.
 - . Warehousing control.
 - . Check/draft control.
 - General Ledger provides:
 - . Monthly and quarterly detail general ledgers.
 - . Monthly income statements.

COMPUTER POWER, INC.

- Automatic balancing procedures.
- Validation of chart of accounts.
- Transaction balancing and editing.
- Processing charges for the four products are:
 - Mortgage Servicing, \$0.30 per loan for the first 10,000 processed, then discounts are applied as loan volume increases.
 - Construction Loans, \$0.25 per loan per month, plus a base charge of \$300 per month.
 - Residential Loans, \$0.25 to \$1.50 per loan, depending on the number and frequency of loans processed, plus a base price of \$400 per month.
 - General Ledger, charges based on the number of transactions processed each month. Lowest monthly charge is \$500 for less than 10,000 transactions; this price increases in increments to \$1,800 for 30,000 transactions. Additional charges are also applied for separate edits performed.
- CPI has 125 processing clients. One hundred of these also use Raytheon PTS/1200 or Honeywell/DPS 6 minicomputers connected to CPI's network.
 - The Raytheon minicomputer is used for batch data entry, controlling the flow of batch work, and on-line data inquiry.
 - The Honeywell system has all the capabilities of the Raytheon system, and is available with Residential Loan Production software as well.
 - Residential Loan Production tracks a loan from application to closing and prepares all closing documents.
 - Data entered is automatically transferred for use with network software products.
 - The license fee is \$50,000.
- Software product sales contributed \$1.2 million in revenue in 1981. All software products are operational on IBM or plug compatible mainframes using any IBM compatible operating system.
 - Mortgage Loan operates in batch mode with an on-line inquiry capability. Purchase price ranges from \$150,000 to \$235,000 depending on options. Twenty-eight mortgage loan packages have been sold.

COMPUTER POWER, INC.

- Construction Loan operates in batch mode only, and sells for \$25,000. Ten packages have been sold.
- Residential Loan operates in batch mode with an on-line inquiry capability. Purchase price is \$25,000. Sixteen packages have been sold.
- General Ledger operates in batch or interactive modes and is sold for \$25,000. There are eight installations.
- In the professional services area CPI offers consulting and portfolio acquisition assistance.

INDUSTRY MARKETS One hundred percent of CPI's revenues are derived from the banking and finance industry. Clients are primarily mortgage companies, commercial banks, and savings and loan institutions.

GEOGRAPHIC MARKETS One hundred percent of CPI's revenues are derived from the U.S. Although clients are dispersed throughout the country, a higher percentage are located in the Florida, Georgia, and western and southwestern states.

COMPUTER HARDWARE

- CPI maintains one data center at its headquarters in Jacksonville. Clients access the center via leased telephone lines.
- One Amdahl 470 V8 with an MVS operating system is used to provide network services.

*David Marshall
VP of Mktg*

COMPANY HIGHLIGHT

COMPUTER POWER, INC.
661 Riverside Avenue
Jacksonville, FL 32204
(904) 358-1424

David M. Hicks, President
Private Corporation
Total Employees: 140
Total Revenues Fiscal Year End
12/31/78: \$8 million

THE COMPANY

- Computer Power, Inc. (CPI) was incorporated in 1969 to provide processing services and software packages to commercial banks, mortgage bankers, savings and loan associations, and mutual savings banks.
- Revenues in 1978 were \$8 million. Management states the company is profitable.
- Application has been made for CPI to be acquired by the Information Services Division of Chase Manhattan. Final approval for the acquisition is expected to occur in September.
- CPI's 140 employees are segmented as follows:

- Marketing	3
- Software support	30
- Customer support	30
- Computer operations	68
- Administrative	<u>9</u>
	140

KEY PRODUCTS AND SERVICES

- Approximately 70% of CPI's revenues are derived from processing services, 15% from the sale of software products, and 15% from professional services.
- The four key products, all of which were developed by CPI, are available on its network service and also sold as software products. These are:
 - Mortgage Servicing:
 - Loan administrative management which includes portfolio analysis.
 - Investor accounting: cashiering, investor reporting, new loan set-up, and loan transfers.

COMPANY HIGHLIGHT/COMPUTER POWER, INC.

- Customer services: escrow analysis, hazard insurance, property taxes, MIP/PMI, HUD #235's, payoffs and assumptions, and A&H/life insurance.
- Collections and foreclosures.
- The entire mortgage servicing system contains about 350 modules.
- Rates for remote batch processing using the Mortgage System on CPI's network are billed at \$.30 per loan for the first 10,000 processed and then discounts are applied as loan volume increases.
- Construction Loan Management:
 - Interest rates with multiple prime rate.
 - Complete accounting: cash receipts, cash disbursements, adjustments, individual loan ledgers, borrowers statements and trial balance.
 - Projections of cash flow, portfolio earnings, and loan yields.
 - Management information and status reports.
 - Processing costs for Construction Loan are billed at \$.25 per loan per month in addition to a base charge of \$300 per month.
- Residential Loan Inventory Control:
 - Loan origination volume and profitability.
 - Inventory control: tracks pipeline loans from application date to closing.
 - Marketing control: maintains individual loan ledgers.
 - Warehousing control.
 - Check/draft control.
 - Monthly processing charges for residential loan carry a base price of \$400 per month and have a per loan processing charge which varies depending on the number of loans processed and frequency of processing. This ranges from \$.25 to \$1.50 per loan.
- General Ledger:
 - Monthly and quarterly detail general ledgers.
 - Monthly income statements.
 - Automatic balancing procedures.
 - Validation of chart of accounts.
 - Transaction balancing and editing.
 - Processing charges are based on the number of transactions processed each month. Lowest monthly base price charged is \$500 for less than 10,000 transactions and increases in increments to \$1,800 for 30,000 transactions. Additional charges are also applied for separate edits performed.

COMPANY HIGHLIGHT/COMPUTER POWER, INC.

- CPI currently has approximately 80 clients throughout the U.S. using their processing services. Twenty-five of these clients are also using a Raytheon PTS/1200 minicomputer connected to CPI's network.
 - Introduced in 1977, the minicomputer is used for batch data entry, controlling the flow of batch work, and for on-line inquiry.
- Software product sales contributed approximately \$1.2 million in revenues during 1978. All software products are operational on IBM 360/370 hardware under OS or OS/VS. Software prices and the number of in-house installations follows:
 - Mortgage Loan operates in batch mode with an on-line inquiry capability.
 - Purchase price starts at \$150,000 and goes up to \$235,000 depending on options.
 - Eighteen mortgage loan packages have been sold.
 - Construction Loan operates in batch mode only.
 - Available for purchase only after 24 months of continuous service on CPI's network, it sells for \$25,000. Eight packages have been sold to date.
 - Residential Loan operates in batch mode with an on-line inquiry capability.
 - Purchase price of the software is \$25,000. Eight packages have been sold.
 - General Ledger operates in batch mode only.
 - Available for purchase after 12 months of continuous use on CPI's processing service, General Ledger is sold for \$10,000. There are two installations of General Ledger.

INDUSTRY MARKETS One hundred percent of CPI's revenues are derived from the banking and finance industry. Clients are primarily mortgage companies, commercial banks, and savings and loan institutions.

GEOGRAPHIC MARKETS One hundred percent of CPI's revenues are derived from the U.S. Although clients are dispersed throughout the country, a higher percentage are located in Florida and Georgia.

COMPUTER HARDWARE

- CPI maintains one data center at its headquarters location in Jacksonville. Clients access the center via leased telephone lines.
- One Amdahl 470 V6 with an MVS operating system is used to provide network services.



*Acquired
by Citicorp*

Joe Mayfield
VP Marketing

COMPANY HIGHLIGHT

COMPUTER PROFESSIONALS UNLIMITED, INC., Ralph Klinck, President

16025 Northland Drive
Southfield, MI 48075
(313) 557-5577

Private corporation

Total employees: 110

Total revenues for fiscal year end
2/28/78: \$3,300,000

THE COMPANY

- Computer Professionals Unlimited Inc. (CPU) was incorporated in Michigan during 1969.
 - CPU's founders spun off from the National Bank of Detroit to form CPU.
 - The consulting firm was then hired by the Credit Union League in Michigan to perform consulting services. This led to CPU offering facilities management (FM) services to credit unions under the auspices of the Credit Union League. In early 1977 CPU acquired the marketing rights from the Credit Union League and now offers services to credit unions independently of the League.
 - About four years ago CPU also began providing batch and remote computing processing services to credit unions. Most of the firm's growth outside Michigan occurred during this period.
- Revenues for fiscal 1979 are expected to reach \$5 million, a 52% increase over fiscal 1978 revenues of \$3.3 million.
 - Management anticipates that most of the company's future growth will be through CPU's new line of turnkey systems offered through CPU Computing Company. CPU Computing is a newly formed wholly owned subsidiary of CPU.
 - The subsidiary is expected to generate \$1.1 million in revenues during fiscal 1979. The rest of CPU is expected to generate \$3.9 million in revenues for fiscal 1979.
 - Fiscal 1978 pretax income for the company was approximately \$200,000 and net income about \$115,000.
 - Management states that earnings have consistently been reinvested.
- Employees are distributed as follows:
 - Field service, (which includes nine marketing persons and the customer support staff) 30
 - Systems staff 30
 - Operations 40
 - Administrative 10
 -
 - 110

COMPANY HIGHLIGHT/COMPUTER PROFESSIONALS UNLIMITED, INC.

- During 1977, CPU and Intercontinental Computing Corp. (Shawnee Mission, KS) announced acquisition negotiations. Although the acquisition efforts were subsequently terminated, management claims that CPU is continuing to actively search for acquisition candidates.

KEY PRODUCTS AND SERVICES

- CPU provides management information services to 400 credit unions serving a total of 1.2 million member accounts. Computer services for fiscal 1978 were generated as follows:

- Processing services	92%
- Professional services	3
- Other	<u>5</u>
	100%
- One hundred percent of fiscal 1978 processing revenues were generated by remote computing services, split evenly between remote batch (50%) and interactive remote computing (50%).
 - CPU provides credit union branch offices with audio response/inquiry services as part of its remote batch services.
 - Credit unions located a mile or so from CPU may on occasion elect to hand carry input or output, thus processing data in batch mode. This accounts for a negligible portion of revenues.
- Processing services provide a wide range of specialized applications to credit unions. The more than 100 reports include:
 - Membership information file access
 - Certificates of deposit
 - Investments
 - Quarterly statements
 - Monthly statements
 - Dividends
 - Share accounts
 - Loan accounts
 - Delinquency control
 - Credit union insurance requirements

COMPANY HIGHLIGHT/COMPUTER PROFESSIONALS UNLIMITED, INC.

- CPU provides three principal processing services. Variations of these have been available since 1961.
 - Weekly batch processing generates about 10% of revenues and is a small package directed at credit unions with assets between \$100,000 and \$500,000.
 - Daily remote batch processing generates about 50% of revenues and is targeted at credit unions with assets of \$500,000 to \$3,000,000. It includes audio response to inquiries about share account balances and memo posting.
 - For audio response, the computer selects from a series of pre-recorded syllables. Audio response acts as a backup system when the on-line, real-time system goes down.
 - Memo posting enables immediate recording of withdrawals made from member accounts.
 - Interactive remote computing services, about 40% of revenues, are targeted at credit unions with assets between \$5,000,000 and \$50,000,000. This segment of CPU's business grew rapidly during fiscal 1978. Currently, 115 credit unions use this service.
- Professional services consist mostly of occasional contract programming for user credit unions.
- Other products and services provided by CPU support processing services and consist, for example, of the sale or lease of data capture cassette devices and microfiche viewers.
- Beginning in fiscal 1978, CPU has been offering turnkey systems.
 - They are targeted at credit unions with assets between \$10,000,000 and \$50,000,000.
 - CPU purchases minicomputers and operating systems from GEAC (a Canadian company). It has exclusive rights to market GEAC 8000 minis to credit unions in the U.S. It then modifies the operating system and adds specialized credit union software.
 - CPU customizes the applications software added to the GEAC 8000 minicomputers more than it customizes its processing services software. It also provides maintenance.
 - The first turnkey system was installed during August, 1978.
 - A total of five installations are expected by the end of fiscal 1979.
 - An additional 12 to 15 installations are anticipated for fiscal 1980.
 - Another 20 to 25 turnkey systems sales are projected for fiscal 1981.
 - Management plans to develop a smaller turnkey system, to be priced at about 60% of the cost of the existing system, to credit unions with assets under \$10,000,000.

COMPANY HIGHLIGHT/COMPUTER PROFESSIONALS UNLIMITED, INC.

APPLICATIONS Specialty applications provided to credit unions generate 100% of processing services revenues.

INDUSTRY MARKETS One hundred percent of CPU revenues are generated by credit unions, part of the banking and finance industry.

GEOGRAPHIC MARKETS CPU's customers are located in nine states. Revenues for fiscal 1978 are distributed by region as follows:

New England (Connecticut)	10%
East North Central (Illinois, Michigan, Ohio and Wisconsin)	80
West North Central (Minnesota and Missouri)	5
South Atlantic (Georgia and West Virginia)	5
	<hr/>
	100%

COMPUTER HARDWARE AND SOFTWARE

- Three IBM System/360 Model 65 mainframes, which run under DOS/MVT and use CICS, are used to provide processing services. Each CPU has 1.25 megabytes of memory.
- Two of the System/360s are located in the Southfield data center and one in the new Atlanta data center. (It was installed during August, 1978.) One additional IBM System/360 Model 65 is planned for the Atlanta center.
- GEAC 8000 minicomputers are used in turnkey systems.

*Acquires
by
Comshare*

COMPANY HIGHLIGHT

COMPUTER RESEARCH COMPANY
200 North Michigan Avenue
Chicago, IL 60601
(312) 977-7500

Ronald L. Ellis, President
Private company; 100% owned by
officers
Total employees: 55
Revenues, fiscal year end
12/31/78: \$7 million range*

THE COMPANY

- Computer Research Company (CRC) was founded in 1969. It now provides remote computing and on-line services to 500 clients in the Chicago metropolitan area.
- CRC claims to have a 60% market share for remote computing and remote facilities management services in the Chicago metropolitan area and expects a 25% growth in revenues over the next two years.
- Revenues have increased approximately 40% from \$5 million in fiscal 1977 to the estimated \$7 million in fiscal 1978.

KEY PRODUCTS AND SERVICES

- Remote computing services currently generate 80% of CRC revenues, remote facilities management 15%, and consulting 5%.
 - Remote computing services are 70% raw time sales and 30% applications processing.
 - For the remote facilities management contracts, CRC provides all hardware, telecommunications, and operations software. Approximately 70% of the applications software is provided by the clients for use on the CRC host. Programming support is available from CRC. The central processor is located at the CRC computer center. Clients have in-house remote batch or CRT terminals, supplied by CRC, through which they access data on the CRC mainframe.
- CRC also offers CICS and TSO software over its network.
- In 1978 CRC launched a Disaster Backup Recovery Plan on its installed 3033.

* Management estimate

COMPANY HIGHLIGHT/COMPUTER RESEARCH COMPANY

APPLICATIONS CRC primarily offers utility services, currently 80% of total processing services. Although it is increasing its general business applications software offerings (now 20% of total processing), their use will account for only 25% of CRC computer network by 1980.

INDUSTRY MARKETS Fifty percent of CRC revenues are generated by clients in the banking and finance industries. Forty percent are data servicers, and 10% are manufacturers.

GEOGRAPHIC MARKETS All of CRC's clients are located in the North Central states.

COMPUTER HARDWARE AND SOFTWARE

- CRC uses an IBM 3033-U6 for remote computing. This replaced two CPUs: an IBM System/370 Model 165 and an IBM System/370 Model 155.
- It has 16 STC 3330-equivalent disk drives; 48 IBM 3350 disk drives; 24 STC 3420-6-equivalent tape drives; 3 IBM 1403 line printers; 1 3211 line printer; and 16 IBM 3277 CRTs.
- It has purchased three general business software packages from Management Science America: general ledger, accounts payable, and accounts receivable. Also available for use are MARK IV, PANVALET, CICS, UCON (similar to Wylbur), and TSO.

*Dropped
1/81*

COMPANY HIGHLIGHT

COMPUTER RESEARCH, INC.
P.O. Box 325
Pittsburgh, PA 15230
(412) 262-4430

James Schultz, President
Public corporation, OTC
Total employees: 48
Total revenues, fiscal year end
8/31/77: \$1,674,151

THE COMPANY

- Computer Research, Inc. (CRI) was founded in 1968 to offer remote batch back office accounting services to the securities industry. It also offered some general business processing and professional services to other industries.
 - The back office accounting package is still CRI's major source of revenues.
 - Management is currently evaluating avenues of diversification and plans to increase its product offerings in fiscal 1978.
- CRI revenues showed an annual average revenue growth of 4% between fiscal 1973 and fiscal 1977. Since fiscal 1975 and 1977, revenues increased an average 14%.
 - Revenues increased 12% between fiscal 1975 and 1976 from \$1.3 million to \$1.4 million. Between fiscal 1976 and 1977, revenues increased 16% from \$1.4 million to \$1.7 million. For the quarter ended November 30, 1977, CRI reported revenues of \$451,986, a 25% increase over the \$361,928 revenues of the same quarter in fiscal 1976.
 - Revenues declined between fiscal 1973 and fiscal 1975 from \$1.4 million to \$1.3 million.
- Income before taxes and extraordinary items increased 105% between fiscal 1976 and 1977. Net after tax income increased 99% during the same period. CRI had net and operating losses from fiscal 1973 through fiscal 1975.

KEY PRODUCTS AND SERVICES

- Approximately 98% of CRI revenues are generated by remote batch processing services. The other 2% are generated by the sale of professional programming services, primarily in conjunction with the remote computing services.
 - Approximately 92% of total revenues are generated by CRI's Back Office Accounting System, currently being utilized by 84 investment and securities firms in the U.S.
 - Other remote batch revenues are generated by general business services.

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COMPANY HIGHLIGHT/COMPUTER RESEARCH, INC./p. 2

- The Back Office Accounting System includes both the paper forms and processing required to prepare the following reports:
 - Name and address updates
 - Securities description listing and updates
 - Transaction edit report
 - Stock and bond trade confirmations
 - Daily trade listing
 - Daily account ledger
 - Cash and securities blotter
 - Securities position and exception reports
 - Dividend report
 - Registered representative commission report
 - Monthly trial balance
 - Monthly customer statements
 - Additional reports are available including interest calculations for margin accounts, incomplete transactions aging reports, trading costs reports, and year-end statements.
- CRI also provides accounting services to the cable television industry, recordkeeping for school districts, and docket indexing for county governments.

APPLICATIONS Approximately 94% of processing revenues are derived from specialty financial services. The remaining 6% of processing revenues are from general business and various specialty services.

INDUSTRY MARKETS The securities industry (part of the finance and banking industry) produced approximately 92% of total CRI revenues in fiscal 1977. Another 4% came from the CATV industry, and 4% from a variety of other industries.

GEOGRAPHIC MARKETS

- CRI users are distributed throughout the Eastern, Midwestern, and Western states.
- Branch offices are located in Birmingham, AL; Chicago, IL; Fort Lauderdale, FL; Haddonfield, NJ; Los Angeles, CA; Memphis, TN; Minneapolis, MN; New York, NY; Philadelphia, PA; Portland, OR.

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COMPUTER HARDWARE AND SOFTWARE

- The company has a central computer site in Pittsburgh with Honeywell HIS 3200 and HIS 6420 mainframes. Data 100/70 (300 lpm) non-intelligent print-only terminals are installed in branch offices for data output. The CRI staff distributes the output to users on a daily basis. Some users have elected to install in-house terminals to receive output.
- Data entry from the users is via in-house teletype communications terminals. The data is collected at the Pittsburgh computer center on a daily basis for computer processing and report preparation.
- The network is composed solely of dial-up lines.

